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WAR ZONE

Familiarization

09727



Pacific Ocean Areas

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TROOP CARRIER COMMAND EDITION
FOR

AIR CREW MEMBERS

REGRADDED *Uncl. per Sec of Def*
Memo, dtd 3 May 72, Subj: Declassification
BY AUTHORITY OF
of White House
BY *[Signature]*
ON *22 Aug 77*



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MAY 1945

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FOREWORD

A War Zone Familiarization Manual for the Pacific Ocean Areas (POA) is presented in the pages which follow. This manual has been compiled from material supplied by various Staff Sections of Headquarters, ARMY AIR FORCES, PACIFIC OCEAN AREAS, and other sources in the POA. The information contained herein is intended solely for orientation of combat crews who may be assigned to AAFPOA. Nothing which appears herein is to be construed as constituting policies of Staff procedure for other Air Forces which ultimately may come to this theater.

Increased efficiency and a material lessening of "strangeness" on the part of AAF personnel reporting to the POA Theater of Operations for the first time can be achieved by indoctrinating them with certain advance knowledge of current local conditions, available facilities, and customary procedures, both flying and otherwise. Such, then, is the purpose of the POA Manual. It is obvious, however, that any real knowledge of the peculiarities of flying or ground service conditions in POA can come only by actual experience and by training of personnel after their arrival in the theater.

One feature which distinguishes flying in POA from any other theater and which cannot be too highly stressed prior to arrival here is the existence of long routes entirely over water, coupled with the rapidly expanding zones of active operations. Resultant acute flying fatigue and difficult navigational problems decree the maximum in air discipline and flying control, as well as thorough indoctrination as to what may be expected insofar as Air-Sea Rescue is concerned. The usually complete lack of check-points and the pin-point size of many targets or homing facilities preclude the use of pilotage in arriving at either rendezvous points or landing destinations. For these reasons the navigator in POA assumes an even more important stature as a crew member than in any other theater.

Care has been taken to incorporate every phase of familiarization which will, in any way, contribute to thorough theater orientation. An early knowledge of what to do and how to do it, based on experience, will save lives, save time and speed the war effort.

It should be borne in mind that conditions are changing rapidly in POA as the war progresses. For this reason, certain portions of the AAFPOA Manual will become obsolete. Every effort will be made, however, to revise the publication as changes occur.

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This War Zone Familiarization Manual for POA is not to be confused with a similar publication compiled for the SOUTHWEST PACIFIC AREA, which incorporates orientation material supplied by the FAR EAST AIR FORCES (FEAF).

BY COMMAND OF BRIGADIER GENERAL OLD:

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CHAPTER I

POA THEATER HISTORY

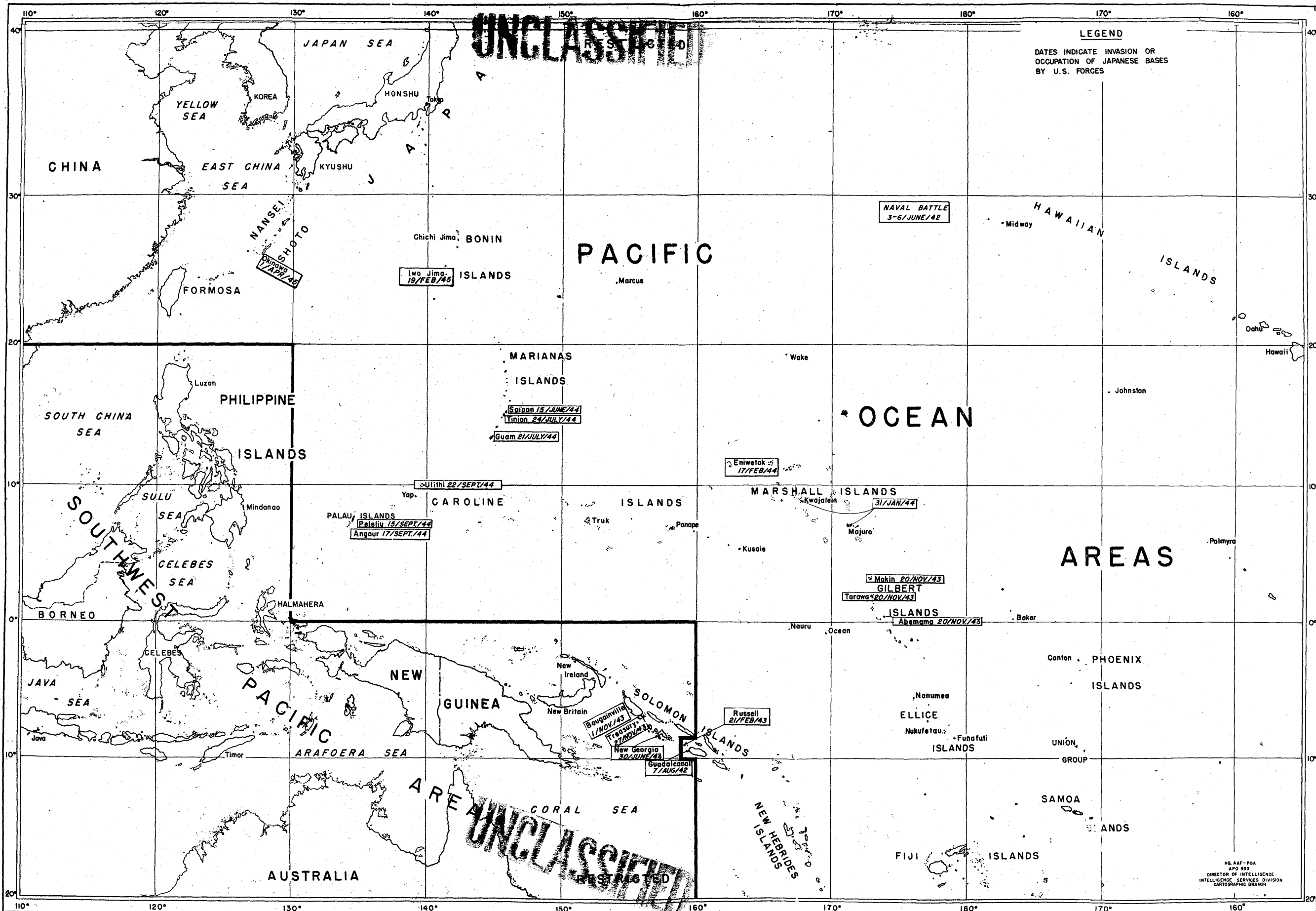
Map of POA

THEATER HISTORY

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CHAPTER I

THEATER HISTORY OF THE PACIFIC OCEAN AREAS

The Japanese seized the initiative in the Pacific Ocean Areas, as they did on the Asiatic Mainland, in the East Indies and the Philippines, by attacking without warning. In one stroke they decimated the Pacific Fleet at Pearl Harbor and shattered the Hawaiian Air Force. Exploiting their initial success, they quickly over-powered the valiant, but out-numbered and poorly equipped, defenders of our Pacific outposts at Guam and Wake. Turning south, they seized in rapid succession Rabaul, Kavieng, Kieta, Bougainville and Tulagi. To the north, they took Attu, Agattu and Kiska. By the summer of 1942 they controlled the Western Pacific from the Aleutians to the Solomons and were seriously threatening our supply lines to Australia and the East.

We were unable to deny the Japanese a major objective until May 1942 when our Navy and Air Forces turned back in the Coral Sea an enemy convoy bound for Port Moresby on the underside of New Guinea. This was followed in June by the smashing of a large Jap expeditionary force headed for Midway. Here, in one of the decisive battles of the war, the ships and planes of the Navy, aided by B-17's and B-26's of the Seventh Air Force, not only thwarted the invasion of the westernmost Hawaiian Islands, but administered a crippling blow to Jap sea power, destroying four carriers, two heavy cruisers, and three destroyers, in addition to damaging numerous other warships and transport vessels.

Midway represented the high tide of Japanese aggression. Although they were still able to take the offensive, as they did at Guadalcanal, Santa Isabel, Rendova, Vella LaVella and Kolombangara, we had in little more than six months marshalled our strength so that we were able to fight back. We made our first amphibious landing of the war on 7 August 1942 when the Marines stormed ashore at Guadalcanal and Tulagi just a month after the Japs had taken them. The campaign on Guadalcanal was long, bitter and bloody but the island was finally taken by two Army Divisions. By the end of the year the Navy had won a decision in the area too. After losing four cruisers without scoring a retaliatory hit in the Battle of Savo Island on 8 and 9 August 1942, American forces came back and in three large-scale engagements, culminating in the decisive Battle of Guadalcanal, drove the Japanese fleet out of the Solomons region.

Gradually, too, the Air Forces won control of the sky in the South Pacific. In the see-saw struggle that followed the invasion of Guadalcanal the Japs were placed on the defensive. It was time to start the long journey back. The start was made on 30 June 1943 when the

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43rd Infantry Division, after having occupied the Russell Islands in February, struck out from Guadalcanal and landed at Rendova. Simultaneously, Allied troops landed at Nassau Bay, south of Salamaua, to be followed 5 July by the invasion of New Georgia Island. From this beginning, in actions at Kolombangara, the Treasury Islands and Bougainville, and in memorable naval battles, we pushed the enemy out of the South Pacific and continued the offensive that was to win back, one by one, the rich prizes he had seized in the Southwest Pacific, on through the Philippines. In the North Pacific too, we had assumed the offensive, as our forces, operating under the worst possible weather conditions, pushed the Japs from the Aleutians and prepared the ground for long-range bombing of the Japanese homeland.

Only in the Central Pacific, where the Japs had struck first, did the war appear quiescent. Here, however, there was a marshalling of land, sea and air strength for the long push across the Pacific to the Japanese homeland itself. Aircraft of the Navy and the Seventh Air Force flew long over-water search missions, as they had ever since the war began, with an occasional raid on distant Wake Island or a reconnaissance and bombing mission over the Gilberts. Then in September 1943, American Task Forces occupied the Ellice Islands, over 2,200 miles south of Oahu, and Seventh Air Force Aviation Engineers quietly moved into the Ellice and Phoenix Islands and began building or improving airstrips at Canton, Funafuti, Nanomea and Nukufetau. The heavy bombers moved in, and on 13 November began a week-long pounding of the Gilberts. On 20 November the Marines waded ashore at Tarawa, where, despite the terrific aerial and naval bombardment that had preceded them, they found the Japs full of fight in their coconut-log dugouts and able to resist fanatically for seventy-two bloody, bitter hours. Simultaneously, the Army quickly overcame the Japs on Makin and the Marines occupied Apemama.

The capture of the Gilberts provided bases from which we could strike the Marshalls still farther north. Even as the Jap airstrip on Tarawa was being lengthened and repaired and new airstrips were being constructed on Makin and Apemama, fast carrier groups of the Navy ranged deep into the Jap mandated territory. The airstrips completed, land-based aircraft went to work on the Marshalls. B-24's struck Kwajalein and the northern islands; B-25's, in devastating low-level attacks, in which the bombs were spiced with fire from 75 mm. cannons, concentrated on Maloelap and other atolls at closer range; fighters and dive-bombers bombed and strafed Mille and Jaluit. On 31 January 1944, following a terrific aerial and naval bombardment, troops of the 7th Army Division landed at Kwajalein and the Japs, after the pounding they had received from our artillery, flame throwers, tanks and bazookas, were forced to cease organized resistance after four days of pill box to pill box fighting. The other islands in the atoll were quickly captured, as was Majuro, one of the finest naval bases west of Pearl Harbor. Early in March, Eniwetok fell to

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American assault forces, thus giving us an advance base over 1,000 miles from Tarawa.

Having secured bases in the Gilberts and Marshalls, the next barrier in the westward sweep of our sea, land and air power was the Carolines, 1,800 miles of island fortresses, and Japan's most formidable chain of defenses in the Pacific. In the center of this stood the great bastion of Truk, anchorage for the Jap fleet and the heart of her Pacific outposts, about which there was an aura of mystery and the feeling that it was, as the Japs had boasted, well nigh "impregnable". The solution to impregnable Truk and the Carolines lay in American air power. Fast carrier planes first struck the fortress on 16 February 1944 and found it vulnerable to air attack. Then the Thirteenth Air Force came up from the South Pacific to strike Truk in daylight raids, meeting fierce interception and sustaining heavy losses. Finally the heavy bombers of the Seventh, by this time based at Kwajalein, began their steady, devastating pounding. After eight months of bombing, Truk was 75% neutralized, useless as a harbor, its storage areas laid waste, its airfields gutted.

Meanwhile, no attempt was made to force a landing in any of the Carolines. Instead we jumped to Saipan, in the Marianas, over 1,000 miles from Eniwetok, and a little over 1,200 miles from Tokyo. The 2nd and 4th Marine Divisions went ashore on Saipan on 15 June, to be followed the next day by the 27th Army Division. It took twenty-five days of some of the dirtiest, toughest fighting of the war to secure the island, and even after organized resistance had ceased, there were long months of pulling individual and small groups of Japs from the caves in which they had holed up. Aviation engineers worked under constant threat of Jap bullets to prepare Aslito Airfield, captured early in the campaign, for use by American planes. By 22 June, P-47's of the Seventh Air Force were operating out of Aslito (renamed Isley Field) in support of ground action on Saipan and against the other Marianas.

With Saipan secured, attention was turned to Guam and Tinian. Guam, after being softened up by repeated carrier and Liberator raids, was invaded on 21 July 1944. While the Marines broke enemy defenses on Orote Peninsula, the 77th Army Division moved rapidly across the island, cutting it in two, and then smashed north to overcome a series of tenaciously held strongpoints. Organized resistance ended on 10 August. During the campaign, medium bombers of the Seventh Air Force flew their first low-level ground support missions of the war. Tinian was invaded 24 July by the 5th Amphibious Corps and the island was secured in seven days. Capture was facilitated by the aerial support furnished by rocket-firing fighters of the Seventh Air Force, carrying fire bombs, and by the massing of thirteen battalions of artillery, the largest concentration of fire power on land ever employed in the Pacific Ocean Areas.

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By early August, Seventh Air Force Liberator Squadrons had moved into the Southern Marianas and were using the repaired and rebuilt airfields as bases from which to strike an entirely new series of targets. They flew north to within 700 miles of Japan where they attacked Iwo Jima in the Volcanoes and Haha Jima and Chichi Jima in the Bonins. To the south, Yap, Woleai and the Western Carolines were attacked. In September our assault forces struck in the south, landing on Peleliu and Angaur in the Palaus, and on Ulithi. Ulithi was occupied without opposition but on Palau, the Japs, aided by an impossibly difficult terrain, resisted fanatically. Burning them out of well-developed fortifications into which they had transformed the many caves on Peleliu, settled down to a prolonged, bloody task. Yet even as this was going on, heavy bombers of the Seventh Air Force were operating off the airstrip at Angaur.

Thus in little more than a year of offensive action in the Central Pacific we had advanced our bases 4,000 miles and transferred the area of our activity from our inner defenses at Hawaii to the very gates of the Japanese homeland. Contemplating the hundreds of well fortified positions dotted throughout thousands of miles of water, this must have seemed like an impossible task a year ago. By any but present day American standards of combined sea, air and land operations it would have been.

We made no attempt to take one by one the atolls Japan had seized and developed into fortresses against us -- fortresses which they hoped would hold us at bay for years, until we had wearied of the long, costly job of retaking them and were willing to leave them with the heart of their ill-gotten empire. Instead of this, we seized only strategically-placed positions and from these let our air power do the rest. Under the ceaseless pounding of Army, Navy and Marine aircraft, such positions as Jaluit, Mille, Wotje and Maloelap in the Marshalls, Kusaie, Ponape, Yap and Truk in the Carolines, Wake, Ocean and Nauru were reduced to complete ineffectiveness and passed by. Their airfields were kept inoperational, their harbor and sea-plane facilities were destroyed. Their beleaguered garrisons had no possibility of receiving supplies or reinforcements. Jap shipping had been relentlessly hunted down and destroyed by our surface, under-surface and aerial striking forces.

A considerable part of the work of neutralizing the bypassed islands has fallen to the Seventh Air Force and the problems attendant upon the operation of land-based aircraft in the Pacific have been enormous. It has been difficult not only to find bases from which to operate, but once the bases were found, it was sometimes even more difficult to find worthwhile targets within effective range. The schedule was gruelling and exacting. The heavily-loaded Liberators would take off from a tiny atoll barely large enough to support a single runway, fly hundreds of miles over water to drop

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their bombs through a screen of flak on a pin-point target, and return over water again to their base. There was never fighter escort for the B-24's and except for a few missions in the Marshalls, when fighters covered their return, the same was true of the B-25's. The distances were too great. The Liberators averaged 1,600 miles per mission. The average round trip to Truk from Kwajalein was 2,400 miles.

The burden of tracking down the enemy in his more removed lairs has fallen to the Navy. Since early 1943 fast carrier groups have prowled the Western Pacific looking for trouble. Their raids not only inflicted damage, but presaged even greater trouble for their victims. The Jap Navy prudently stayed out of the way. Prior to the great Philippine Islands naval battle, the closest it came to accepting a show down was during the battle of the Philippines Sea in July 1944, and this was solely an air battle, with hundreds of miles separating the surface vessels. When in late October surface units of our Navy were able to make contact with those of the enemy's fleet, the result was little short of disastrous for the Japanese. So seriously was their Navy crippled that it was able to offer little resistance to General MacArthur's invasion of the Philippines.

By late autumn of 1944 there was concrete proof that the character of the Pacific war had changed. The tiny atolls from which our heavy bombers operated a few short months ago had become mere way stations on the far flung air routes of the Pacific. The Marianas are no mere atolls. They are good-sized islands from which great numbers of the world's heaviest bombers can operate. On 23 November, Thanksgiving Day in the United States, B-29's, taking off from Saipan, conducted the first raid by land-based planes upon the capital city of Tokyo. We had already shorn the Japanese of the outer tentacles of their sprawling, stolen empire, now we were striking at its very heart.

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CHAPTER II

ADMINISTRATION

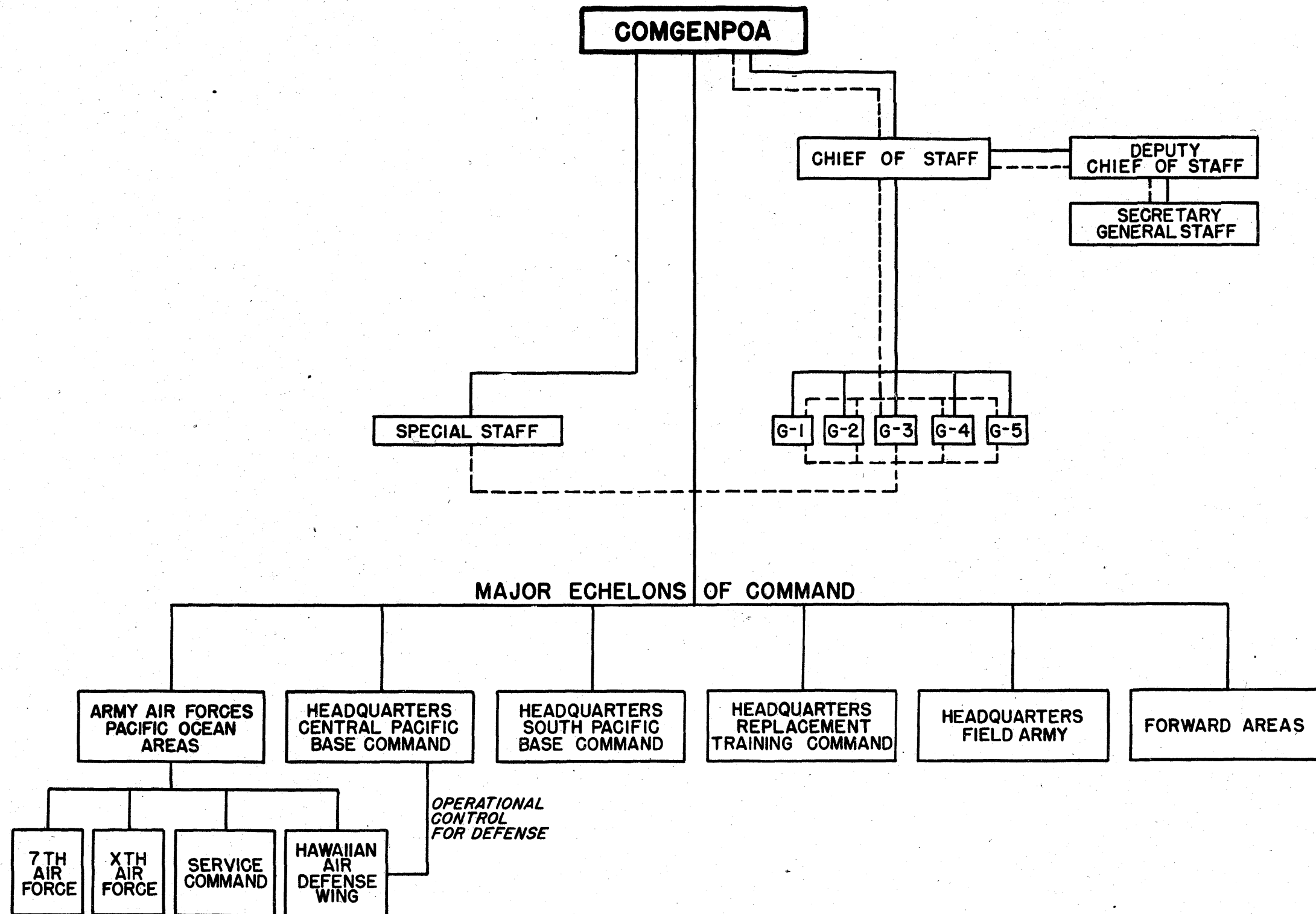
Chart of Organization

ADMINISTRATION

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ORGANIZATION OF ARMY FORCES IN THE PACIFIC OCEAN AREAS



LEGEND:

——— COMMAND CHANNEL

- - - - - ADVICE, RECOMMENDATION, AND COORDINATION

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HEADQUARTERS PACIFIC OCEAN AREAS

APPROVED:

Robert C. Richardson, Jr.
Robert C. Richardson, Jr.
Lieutenant General, USA
Commanding
1 August 1944

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CHAPTER II

ADMINISTRATION

1. The Commander in Chief, Pacific Ocean Areas (CINCPAC), commands all United States Armed Forces in the Pacific Ocean Area. CINCPAC is also Commander in Chief, Pacific Fleet (CINCPACFLT) which is strictly for the operation of Naval Forces only.

2. CINCPAC is the highest echelon of command in this theater. Naval and Marine Forces consist of the 3rd and 5th Fleets and allied units. Army Forces are placed under the next echelon of command which is known as Headquarters, United States Army Forces, Pacific Ocean Areas (HUSAFPOA). United States Army Forces, Pacific Ocean Areas, was established 1 August 1944 to consist initially of all United States Army Forces assigned in the Central and South Pacific Areas. USAFPOA is administered directly by the War Department and command is exercised under CINCPAC under the principles of unified command. Commanding General, Pacific Ocean Areas is known as COMGENPOA.

3. The major echelons under USAFPOA are Army Air Forces, Pacific Ocean Areas (AAFPAC), Central Pacific Base Command (CPBC), South Pacific Base Command (SPBC), Replacement Training Command (RTC), a Field Army (10th Army), and Forward Areas known as Army Garrison Forces. (See Organizational Chart).

4. The Central Pacific Base Command and the South Pacific Base Command are primarily charged with logistic support for tactical units in their respective areas.

5. The Replacement Training Command handles all details necessary in the obtaining and training of all Army Forces replacements for this theater except Air Forces Combat Crews.

6. The Tenth Army comprises the Ground Forces for this area with the exception of those troops in the Army Garrison Forces which are dispersed in the forward areas as the tactical situation demands.

7. Army Air Forces, Pacific Ocean Areas (AAFPAC), was established 1 August 1944 to consist initially of the United States Army Air Forces units assigned to the Central and South Pacific Areas. Under the principles of unified command, AAFPAC is responsible directly to CINCPAC for all matters pertaining to the preparation of plans, operations, training and disposition of these forces. Operational control of Army Air Forces units assigned to joint task forces are as directed by CINCPAC.

8. AAFPAC is the senior Army Air Forces Headquarters in this area and is both tactical and administrative in nature and operates

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under the Director Plan, as set down by Headquarters, Army Air Forces. The major units now assigned this command are:

- a. Seventh Air Force:
 - (1) VII Bomber Command.
 - (2) VII Fighter Command.
 - (3) VII Air Service Area Command.
- b. VI Air Service Area Command: Exercises command over all assigned Army Air Bases:
 - (1) 4th Emergency Rescue Squadron.
 - (2) 13th AAF Emergency Rescue Boat Squadron.
 - (3) 19th Troop Carrier Squadron.
 - (4) 310th Troop Carrier Squadron.
 - (5) 55th Air Depot Group.
- c. 7th Fighter Wing: Charged with the tactical operations in the air defenses of Oahu and is assigned to Headquarters, Central Pacific Base Command for operational control for such defense.
- d. Hawaiian Air Depot: Serves all AAF units in the Pacific Ocean Areas and makes distribution to units of all technical publications.
- e. 1st Provisional Weather Group: Furnishes all weather information and data for AAF units in the POA.

9. The following is the policy governing the assignment of Army Air Forces units and personnel under the jurisdiction of this headquarters:

- a. General:
 - (1) The policy of this headquarters will be to retain a minimum amount of units and organizations assigned directly to AAFPOA and to reassign units to the maximum practicable extent to major subordinate echelons, namely, Seventh Air Force, 7th Fighter Wing, VI Air Service Area Command, and Hawaiian Air Depot. Normally a unit or organization will be assigned to a higher command when:

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- (a) The unit or organization is an integral part of the organization of the higher command.
- (b) The higher command has permanent control or a long range or overall interest in the unit or organization.

b. Personnel:

- (1) Assignment of a unit or organization places the personnel of such unit or organization under the reassignment jurisdiction of the command to which assigned, unless specifically prohibited by higher headquarters.
- (2) Reassignment of personnel will conform to current War Department policies and policies of higher headquarters within the theater.

c. Equipment: Equipment of units and organizations assigned to a command may be transferred between assigned units or organizations of that command by the commander concerned, unless specifically prohibited by higher headquarters.

d. Key personnel should become familiar upon arrival in this area with the provisions of AAFPOA Regulation 80-1, regarding the new assignment, attachment and employment of AAF units and organizations.

10. An operations analysis section is maintained at this headquarters under the direct supervision of the Chief of Staff. This section investigates and submits reports with recommendations on matters referred to it by the Chief of Staff concerning the utilization of personnel, equipment, weapons, and allied subjects which have as their aim a furtherance of the war effort.

11. MAIL: The Army Postal Service organization is complete and serves all units of this command. V-mail service is available to all units and should be used as much as possible in order to give as much help as possible in the saving of shipping space and the expedition of supplies that have to be transported great distances.

12. ORDERS:

a. Transfers, Detached Service and Temporary Duty:

- (1) Transfers, detached service and temporary duty within this area issued by Commands, Battalions, Wings and Groups under the jurisdiction of AAFPOA, when water or organic transportation is utilized.
- (2) When transportation of other agencies is used, orders

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will be issued by Headquarters, AAFPOA or higher headquarters.

b. Rotation: Orders for all personnel (air or ground) - Headquarters, AAFPOA only.

c. Leaves and Furloughs - Routine (for all personnel) - Headquarters, Central Pacific Base Command unless authority is delegated to Headquarters, AAFPOA in individual cases.

d. Schools:

(1) Schools within continental limits of United States:

(a) Refresher courses - Headquarters, AAFPOA.

(b) OCS - Central Pacific Base Command.

(2) Schools within this area - Headquarters, AAFPOA and Commands, Battalions, Wings and Groups, under the jurisdiction of AAFPOA unless otherwise specified by higher commands.

13. The Commanding General, Army Air Forces, Pacific Ocean Areas, is designated Deputy Commander, Twentieth Air Force, and is directly responsible to the Commanding General, Twentieth Air Force on all matters pertaining to those elements of the Twentieth Air Force which are based in the Pacific Ocean Area. In this capacity he deals directly with CINCPAC in the coordination of Twentieth Air Force activities in this area. The major units of the Twentieth Air Force now in this area are:

XXI Bomber Command
73rd Bombardment Wing (VH)
313th Bombardment Wing (VH)
314th Bombardment Wing (VH)

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CHAPTER III

GENERAL INFORMATION

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SECTION I

CLOTHING & EQUIPMENT

1. CLOTHING:

a. Usually only the cotton khaki uniform is worn in this theater; its equivalents in gabardine or tropical worsted are authorized for officers if desired. Enlisted men's woolen O.D.'s are normally turned in upon arrival. Flight jackets for flying personnel and field jackets for ground crews are frequently needed while raincoats or ponchos are a "must" in all parts of the theater.

b. All personnel are advised to use G.I. shoes for general wear in all areas forward of the Hawaiian Islands. For flying personnel they are the only practical type of footwear if forced down in jungle areas. In addition, experience has proved that the coral or lava-studded terrain to be found in general throughout the entire theater taxes normal wear and tear of even the heaviest types of shoes. One pair of light-weight low-quarter shoes for resting the feet in quarters areas are taken forward by some personnel. Rough ground in most barracks areas and camp sites with outdoor showers and latrines makes moccasins preferable to ordinary bedroom slippers.

c. In operational areas and while flying, the following are recommended:

- (1) Flying suits, summer.
- (2) Khaki clothing.
- (3) Heavy G.I. shoes (no flying boots).
- (4) Winter flying clothing.

d. Wool clothing may be worn by officers in this theater but is neither desirable nor necessary. Seven khaki uniforms may be considered a minimum requirement.

e. The wearing of shorts, in lieu of regulation length trousers, and short sleeved shirts is usually forbidden by medical authorities because of the presence of malaria, dengue fever and other diseases caused by insect bites. For the same reason collars are normally buttoned after sunset and mosquito bars are frequently a necessity. The proximity to the equator of many POA airdromes, with resultant intense heat from the sun, makes continuous daylight wearing of headgear mandatory, even aside from normal uniform regulations.

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2. PURCHASE OF CLOTHING:

a. Clothing is purchased through QM Sales Stores. Although stocks are not rationed usually the items are limited as to the number which may be purchased at one time.

b. Officer's type khaki clothing is not available in all desired sizes. A good supply of low-cut shoes is available, as are shoe repair facilities.

c. All items of the summer uniform (except headdress), in addition to underwear, socks, handkerchiefs, G.I. shoes, towels and fatigue clothing, are available to officers by purchase from the Quartermaster, making it unnecessary to procure large quantities of these (except out sizes) prior to arrival in POA. It will be found that "travel light" is a good rule for AAF personnel. (Such items as steel helmets, weapons and gas masks will not, of course, be discarded to apply this rule.) Climatic dampness causes clothing to mould rapidly and extra items should be aired frequently. A few coat hangers are useful for this purpose.

3. DESIRABLE ITEMS OF EQUIPMENT:

a. All Personnel:

Raincoat	Nail clippers or file
House slippers	Fountain pen and pencil
Cigarette lighter	Sewing kit
Swimming trunks	Short wave radio
Bath clogs (a must)	Extra insignia
Talcum powder	Wrist watch straps
Mirror	

b. WAC's:

Cosmetics	Cotton panties	Dress slacks
Swimming suit	Brassieres	and skirt
Fatigue dress	Bobby pins	Electric iron
"T" shirts	Light cotton robe	Cotton anklets
Cologne	Band-aids	Starch

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SECTION II

PERSONNEL

1. PREPARATION FOR OVERSEAS MOVEMENT:

- a. Army Air Force standard instructions for movement of units and individuals overseas are quite complete and comprehensive if followed in detail and do not need any particular amplification.
- b. Personnel should bring personal equipment they will desire, such as: cigarette lighters, watches, small hand mirrors, etc. They are rarely procurable overseas. (See Section I, this Chapter, paragraph 3.)
- c. Officers should not bring woolen uniforms with them and they should especially eliminate leather luggage. It deteriorates rapidly overseas. Canvas luggage is preferable. (See Section I, this Chapter, paragraphs 1 and 2.)
- d. The initial movement from the POE will be according to standard operating procedure for all theaters: a counter-intelligence plan put into operation to cover the movement, indoctrination of all personnel relative to censorship regulation, safeguarding military information, and the inspection of baggage and personal effects for papers, letters, documents, etc. that should not be taken beyond the port of embarkation. Diaries and photographic albums should be sent home before leaving the POE.

2. TRAINING:

- a. Thorough indoctrination in principles of sanitation and personal hygiene and strict discipline in their enforcement are necessary to avoid malaria, diarrhea and dysentery.
- b. The danger of being lost in the tropics or cast adrift predicates the need for training in methods of obtaining food and shelter from the sea and from tropical vegetation.
- c. The static nature of troops on atolls and air bases indicates need for special training in techniques of defensive combat.
- d. All troops should receive instruction in amphibious training.
- e. Swimming instruction is mandatory for all units staging in this area.
- f. Special training should be given in the tactics, ruses and deceptive measures of the Japanese soldier.

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g. Get all the information you can concerning the Pacific Ocean Areas - the land, the people, the ocean. Check with the Information Education Officer at your station for source material. Time-space element is important in keeping yourself properly orientated in this area.

3. TOURS OF DUTY AT "OUTPOST GARRISONS":

a. The Commanding General, USAFPOA, has an announced policy stating that the duration of duty tours at the smaller garrisons within the Pacific Ocean Areas, i.e., Canton, Christmas, Fanning, APO 459, etc., be reduced to a minimum consistent with limited transportation facilities available and the tactical requirements.

b. The designation of normal duty tours at these "Outpost Garrisons" are announced from time to time by Headquarters, USAFPOA.

c. The Commanding General, AAFPOA, is responsible for the relief of AAF personnel, other than combat crews, in accordance with the policy of Headquarters, USAFPOA. Personnel who are relieved from duty at "Outpost Garrisons" are returned to the Hawaiian group for further duty or disposition and replacements are furnished based upon requisitions submitted by Garrison Commanders concerned.

4. LEAVES OF ABSENCE & FURLOUGHS:

a. Regular leaves and furloughs (thirty days plus travel time) to the continental United States are granted to selected applicants in the following categories, with priority as listed, based upon monthly quotas allotted by Headquarters, USAFPOA:

- (1) Individuals who have completed more than twenty-four months' continuous service overseas immediately prior to time of consideration. Those men who have been in the area longest are given first consideration.
- (2) Individuals with less than two years' service overseas with lowered physical condition and who can be measurably benefited by leave or furlough.
- (3) Individuals who have completed more than twenty-four months' continuous service overseas immediately prior to time of consideration, but have had short leaves of absence or furloughs granted incident to a return to the continental United States on official business.
- (4) In each of the preceding categories preference is given in the following priority to:

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- (a) Individuals wounded in action.
- (b) Individuals who have been decorated.
- (c) Individuals who have occupied particularly difficult assignments and who have discharged their duties with merit.

b. Emergency leaves and furloughs are granted when definite proof is provided that an emergency exists which necessitates the presence of the individual. The American Red Cross is an acceptable agency for providing such proof. Air transportation is provided for emergency leaves or furloughs.

c. Combat crew members in the forward areas are returned to the Hawaiian group for ten days' detached service for the purpose of rest and recuperation, upon completion of a specified number of missions, or when so recommended by unit flight surgeons. At the present time the AAFPOA Rest and Recreation Camp Processing Center has accommodations for 152 enlisted men and 143 officers at army-operated rest houses located on the island of Oahu. In addition, eighty officers or enlisted men can be accommodated each month in private homes and ranches located in the Hawaiian group.

5. ROTATION:

a. Personnel other than Combat Crews:

- (1) The War Department sets a monthly quota for this theater, which at present is 1300.
- (2) No distinction is made between arms or services and no sub-quotas are pro-rated.
- (3) An individual normally becomes eligible for rotation upon having completed thirty-six months' continuous service outside the continental United States, provided that:
 - (a) He has not had a leave or furlough of thirty days or more in the continental United States within the last six months.
 - (b) He has not been on temporary duty or detached service for a period of 100 days or more within the continental United States during the last year.
- (4) An individual who has been wounded in action two times or more in such a manner as to require hospitalization for a total of sixty days or more as a result of all wounds,

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becomes eligible for rotation on the first day of the month succeeding his return to duty.

b. Combat Crews:

- (1) Retirement from Combat - The following policy for rotation to the continental United States has been approved by the theater commander:
 - (a) Forty combat missions for heavy bombardment.
 - (b) Sixty combat missions for medium bombardment.
 - (c) Eight months in combat area for fighter, photo reconnaissance, combat mapping.
 - (d) Sixteen months in the forward area for Troop Carrier.
 - (e) Two years' service in theater for Combat Air Patrol in rear areas.

All personnel meeting the above requirements are rotated to the continental United States under the provisions of paragraph 4, WD Circular 372, cs, for rehabilitation.

- (2) The above policy for rotation of combat crew personnel does not include those officers whose capabilities call for further assignment to command and staff duties. Such officers are granted thirty days leave of absence to the continental United States upon completion of requirements as stated in (1) above and returned to their organizations for assignment.

6. AWARDS & DECORATIONS:

a. The Commanding General, AAFPOA, is authorized to award all Army decorations except the Medal of Honor, the Distinguished Service Medal, the Medal for Merit and the Legion of Merit. Authority to award the Silver Star, Distinguished Flying Cross, Soldier's Medal, Bronze Star Medal, Air Medal and the Purple Heart has been further delegated to the Commanding General, Seventh Air Force.

b. The Distinguished Flying Cross is awarded to individuals serving in any capacity with the Army Air Forces for heroism by voluntary action or extraordinary achievement while participating in aerial flight. The achievement required must be evidenced by exceptional and outstanding accomplishment as to set the

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individual apart from his comrades who have not been so recognized. This also applies to the Air Medal but in a lesser degree. No award of the DFC or Air Medal is made solely on the basis of hours or missions.

7. ASSIGNMENT:

a. Troop Carrier crews, arriving by water or air, are assigned to rear area Troop Carrier units upon arrival and reassigned to forward area units as required.

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SECTION III

MAIL AND CENSORSHIP

1. COMMUNICATIONS:

- a. V-mail is most reliable.
- b. Air mail is fastest within the United State; however, there is a shortage of air mail envelopes from time to time.
- c. Cables may be sent from Hawaii.
- d. Parcels sent and delivered by water transportation usually require from two to six weeks for delivery, depending on the number of different APO changes you may have. It is better to wait until you are definitely assigned before requesting packages from home.

2. EXCERPTS FROM CENSORSHIP REGULATIONS IN THE POA:

a. Unit Censor Stamps - Whenever there is a change of custodian of a Unit Censor Stamp within a unit, it will be reported to the Base Censor immediately.

b. Officers' Mail - Officers' mail must be signed in the lower left hand corner of the envelope. V-mail letters must be signed in the inside of the form, in the circle designated for the Censor's stamp, as well as on the outside in the lower left hand corner.

c. Air Crashes:

- (1) Where an accident has resulted in the destruction or disabling of aircraft, no mention may be made of the cause or of the extent of damage done to the planes. Where news releases of a crash are made, as many details as are contained therein are permissible.
- (2) Where no news release is made, the fact that an accident occurred will be allowed but no details of cause or results will be passed.

d. Air Missions:

- (1) Air Corps personnel may mention having participated in a raid or mission on a specific target or island when the island or target has been announced in press releases. Where the news release mentions only a group of islands as the target, no more specific designation than the

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group will be permitted. For example, mention of raids on Truk are permitted when announced specifically; when the phrase "other Jap bases in the Marshalls", etc. is used, no mention of specific targets is permitted.

- (2) Air Corps personnel will not be allowed to give more details of the raid than are released to the press.

e. Articles Purchased at PX's:

- (1) Information has been received from the Post Exchange Officer, CPA, that only those articles which are especially ear-marked as gifts in the post exchanges should be sent through the mails to the mainland, and that other items such as toilet articles, shoes, cigarettes, clothing, etc. should not be sent.
- (2) The continued transmission of these items through the mail to the mainland will add to the already existent shortage.

f. Censorship of Legal Documents:

- (1) In order to insure that legal documents, such as naturalization papers, power of attorney, deeds, wills, etc. contain all the necessary information and at the same time conform to censorship requirements, military personnel who execute such documents will prepare them in accordance with normal procedure using the appropriate city and county, Territory of Hawaii, as their location. Address of witnesses will be given as the actual place of residence. The oath should be administered by a member of the service. No APO number will appear anywhere on the document.
- (2) The document will then be inclosed and sealed in an envelope addressed to the proper addressee. No return address will be placed on this envelope. The addressed envelope will then be placed in another envelope which will be addressed to Theater Censor, APO 958. The Theater Censor on receipt will forward the document to its proper destination.

g. Classified Documents: All classified documents will be condemned regardless of the age of the document. This is necessary because of spot-check by several mainland agencies. If the classification of a document has been lifted, a notation to that effect, giving the date and authority, should be made on the document itself. Several kinds of documents, e.g., rosters, group movement orders, orders, etc. are classified because of the numbers involved.

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Extracts of such documents, made for 201 files, will be passed when only the name of the sender is included.

h. Chain Letters - Sending of chain letters violates the postal laws on fraud as well as putting an unnecessary strain on the postal channels. Chain letters are prohibited the use of the mails and troops are cautioned not to continue the chains.

i. Diplomas and Certificates - The mailing of diplomas and certificates is subject to the following special restrictions:

- (1) Diplomas from the Ranger School and Jungle Training School are permitted.
- (2) Diplomas may not reveal a more specific location than the name of the island unless the schools are the only ones servicing the CPA, e.g., Aerial Gunnery School at Hickam Field, Bakers' and Cooks' School at Fort Ruger, Fire Fighters' School at Fort Kamehameha, Motor School, Ranger School at Schofield Barracks.
- (3) Certificates of Excellence in any activity and letters of commendation are permissible if the geographical location does not appear and if the certificates do not appear in roster form.
- (4) Certificates of Excellence in the use of combat arms may be mailed provided the weapons are part of the standard Table of Equipment for an organization and have been announced as being in use in the CPA.

j. Exportation of Foods - The provisions of the Hawaii Defense Act Rule No. 56 prohibit the exportation from the territory of any food products imported for use here or of any food products manufactured here that can be utilized. This prohibits the mailing of guava jellies, macadamia nuts, etc. from the territory. Under a ruling by the Attorney General, Territory of Hawaii, tobacco, in all forms, and chewing gum are included as food products and may not be sent out of the Territory.

k. Italian and Japanese Prisoners in Territory - The fact that there are Italian or Japanese prisoners of war in the Territory of Hawaii may be released. Detailed accounts of their number, treatment and circumstances of their capture are restricted.

l. Mailing of Plant Seeds - This office has been advised by the Department of Agriculture that plant seeds of the following types may be mailed outside of the Territory of Hawaii without a certificate from

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the Department of Agriculture provided they are strung into leis, bracelets, purses, and other similar articles of apparel and ornaments: Koa seeds, Job's Tears, Wiliwili seeds, Kuhui nuts, Moanaloa seeds, Monkey nuts. These seeds may not be sent out of the Territory in any other form unless they are accompanied by a certificate from the Territorial Plant Inspection Office, Ala Moana Road,,Honolulu, T.H.

m. Mailing of Film - The sending of unexposed film outside of the Territory of Hawaii is forbidden. This includes islands in the CPA outside the territory as well as the continental United States. This prohibition does not extend to the FBI or departments or agencies of the Army or Navy in the course of official business. Post exchanges are included as official agencies.

n. Mail Service to Italy:

- (1) Advice has been received from the War Department to the effect that mail service between non-enemy countries and dominions and the liberated areas of Italy was resumed on 16 February 1944.
- (2) Mail to Sardinia, Sicily and the Italian provinces listed below will be accepted for delivery:

Taranto	Naples	Lecce
Bari	Avellino	Catanzaro
Potenza	Reggiodicalabria	Benevento
Salerno	Matera	Rome
Brindisi	Cosenza	Vatican

o. Plant Quarantine Program:

- (1) The mailing of the following plant materials and insects at Army Post Offices (APO) outside the continental United States, addressed to points in the continental United States, is illegal:
 - (a) Cottonseed, seed cotton and cottonseed hulls. This includes cotton bolls, etc. as souvenirs, as well as cotton lint containing seeds and cottonseed hulls which might be used for packing material. Processed cotton lint such as absorbent cotton, cotton batting, or other form of lint free of seeds may be used as packing material.
 - (b) Unhulled rice and rice straw and hulls. Rice straw and rice hulls are not acceptable packing materials.
 - (c) Leaves and parts of plants used as packing materials.

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- (d) Bamboo seeds or plants.
 - (e) Sugar cane.
 - (f) Citrus plants or cuttings.
 - (g) Banana plants.
 - (h) Fresh fruits and vegetables, including potatoes, sweet potatoes and yams. Dried, cured, or processed fruits and vegetables, such as dried peas, beans, cured figs, dates, etc. are acceptable.
 - (i) Live insects, including living larvae, pupae and eggs.
- (2) Numerous violations of the law in this respect have been reported by the Department of Agriculture. The mailing of the above stated plant materials or insects from outside the continental United States might have a devastating effect upon the future agricultural economy of the country by spreading plant diseases and insects.
- (3) When parcels containing living plants, seeds, bulbs, etc. and unprocessed plant material not on the foregoing prohibited list are prepared for mailing, they will be plainly marked as containing plant materials.

p. Pictorial:

- (1) Photographs of Bombed Churches - There has been a considerable discussion of the merits of condemning pictures of damaged churches, etc., particularly when there has been some doubt as to whether the damage was effected by the United States or enemy action. Such pictures, should they fall into wrong hands, would constitute a potential source of propaganda. It is still the practice of the United Nations to hold sacred and spare places of worship whenever possible; therefore, all pictures showing bombed or shelled churches, cemeteries or other shrines will be condemned.
- (2) Organizational Photographs - G-2, CPA, advises that photographs of organizations or units located in the Central Pacific Area are classified regardless of source, time or place that the photographs were taken. This prohibits sending pictures taken pre-war or ones taken on the mainland prior to coming to the CPA. No such pictures will be permitted in the mails.

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- (3) Photographs of Temporary Graves - The War Department advises that photographs of temporary grave locations are prohibited regardless of the fact that such photographs are by official or amateur photographers. This is pursuant to the provisions of WD Circular 206 (1943).

q. Parcel Post - Although regulations already exist governing the handling of certain items of parcel post, the following summary is given:

- (1) Jap blankets and woolen goods must be accompanied by a certificate from the commanding officer in accordance with WD Memo W570-3-43 as well as a certificate of decontamination. (Laundry bill will do)
- (2) Name plates from captured Jap equipment should be submitted to this office for clearance. Dog tags need not be.
- (3) Feather fans are prohibited. If mailed they will be returned or condemned.
- (4) Empty U.S. shell cases and ammunition may not be sent.
- (5) Chewing gum and cigarette lighters with fluid may not be sent and will be returned to the sender.
- (6) QM issue clothing may not be sent as the personal property of the enlisted man.
- (7) Home-made recordings, if made here, will be returned to the sender.

r. Prisoners of War - An increasing number of POW letters addressed to enemy or enemy-occupied countries and bearing military return address have been appearing in the mail. This is contrary to established procedure outlined in paragraph 19 b, Training Circular 15, 16 February 1943, subject: "Military Censorship". The correct method is to address such letters to friends or relatives in the continental United States who will put the letter in a fresh envelope with a civilian address and forward the letter to the POW for whom it is intended. In this way no military address of U.S. armed forces will appear on the envelope. In order that letters to POW will pass U.S. censorship untouched and to prevent possible reprisals or unnecessary interrogation of POW by the enemy, all troops should be careful that:

- (1) No implication or stated are made that the

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writer, mutual friends or relatives are members of the armed forces or are stationed or serving outside the continental limits of the United States.

s. Reference in Letters to Trans-Pacific Telephone Calls:

- (1) Numerous instances have been found where personnel are referring in communications, both to the mainland and to other islands, of telephone calls they are going to make or are trying to place.
- (2) In view of the continued movement of troops in this area and the restrictions imposed by Circular 141, any reference to phone calls, either Trans-Pacific or inter-island, will be deleted.

t. Souvenirs:

- (1) Activities of souvenir hunters have prevented the accumulation of sufficient captured enemy material for training purposes.
- (2) It is directed that all commanders take immediate steps to collect and forward to this headquarters all articles of captured material of the following types:
 - (a) Gas masks.
 - (b) Ammunition and explosives.
 - (c) Optical instruments (including field glasses).
 - (d) Firearms (including pistols, rifles, machine guns, mortars and grenade throwers).
 - (e) Helmets and web equipment.
- (3) Material will be assembled by major echelons, which will request shipping instructions from the Assistant Chief of Staff, G-2, Central Pacific Area, APO 958.
- (4) Articles may be tagged with the name, serial number and organization of the present holder. Return to him will be made if there is a surplus of that article.
- (5) Captured enemy material not covered by the above is subject to the following restrictions:

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- (a) Hari-kari knives, Sumurai swords, empty shell cases, etc. may be mailed provided they are accompanied by a certificate of release signed by the commanding officer of the unit.
- (b) Documents, manuals or paper containing writing will be accompanied by a certificate but must be sent through Theater Censor, APO 958 for intelligence review and forwarding.
- (c) Post cards do not require a certificate but must be sent through Theater Censor.
- (d) Japanese currency does not require a certificate and may be released locally without reference to Theater Censor.

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SECTION IV

SPECIAL SERVICES

1. RECREATION:

a. Reading Materials:

- (1) CPW reading kits are received by all units upon request.
- (2) Magazine kits are received by all units upon request.
- (3) Newspapers.

b. Motion Pictures:

- (1) An effort is being made to establish the facilities for showing moving pictures in designated and dispersed areas of at least 500 men rather than to each unit in order to evenly distribute the showing of films.

c. Phonographs:

- (1) V discs (records) distributed from Special Service Supply.

d. Game Equipment:

- (1) Up to the end of the second quarter, critical items such as softballs, baseballs, footballs, basketballs, volley balls and nets, tennis balls and nets, etc. have been available only in very limited quantities or not at all.
- (2) Units stationed in the Hawaiian group have use for all Special Service equipment and activities, but due to climate and terrain, or lack of terrain, activities most generally used in the forward areas include movies, radios, victrolas, cards, books, horseshoes, volley ball, softball, badminton, small games, wood and metal craft and art craft.

e. Facilities:

- (1) Unlike the Southwest Pacific Theater no large cities except Honolulu exist in the POA. In the Hawaiian Islands "night life" is made impossible at present by a ten o'clock curfew. Several excellent recreational resorts for the rehabilitation of "war-weary" personnel are, however, maintained by the Army or AAFPOA itself in the Hawaiian Islands. Other resorts will be established nearer the zones of active combat operations.

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- (2) Adequate Officers' and EM clubs, theaters and athletic fields are to be found at the majority of air bases located in the Hawaiian Islands. Facilities for indoor and outdoor athletic contests, as well as limited libraries and writing materials, are offered at almost all forward airdromes. Motion pictures are a nightly occurrence except when enemy action appears imminent. Frequent USO shows are also available in most areas of this theater.

2. POST EXCHANGES:

a. Post exchanges are established at most installations of any size. Units draw on basis of strength reports. Rationing is in effect on some items in the forward areas.

b. Supplies usually consist of:

- (1) Toilet articles - usually of good stock.
- (2) Tobacco (smoking).
- (3) Cigarettes (not usually rationed).
- (4) Cigars (usually one per day).
- (5) Chewing tobacco - available.
- (6) Beer (rationed).
- (7) Coca-cola (rationed).
- (8) Fruit juices (obtainable at times).
- (9) Confections (candy, chewing gum and peanuts) (rationed).
- (10) Writing material (second sheets make best air mail stationery).
- (11) Writing ink (but bring special ink for your Parker "51").
- (12) Miscellaneous items, such as shoe laces, sewing kits (from time to time) and a few other odds and ends.

c. The following articles are scarce but are available at times.

- (1) Radio.
- (2) Wrist watches

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- (3) Cameras.
- (4) Cigarette lighters.
- (5) Film.
- (6) Good razor blades (non-standard razor blades are plentiful.)

d. Efforts to "stock up" on such items as razor blades, shaving cream, tooth brushes or smoking materials on the mainland or in the Hawaiian Islands prior to departing for forward area duty are unnecessary since the great majority of operating airdromes have field post exchanges adequately stocked with these items. It is desirable, however, to secure personal watches, fountain pens, cigarette lighters, flashlights and similar equipment before entering the theater, whenever possible. The great distance involved renders the average battery radio inoperative in the forward areas, while the use of cameras is strictly limited by censorship and security regulations and they are often not worth the trouble involved in their transportation. In addition, the dampness of tropical islands is very injurious to both radios and cameras. Electric razors cannot be used on shipboard or in a large portion of the forward areas.

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SECTION V

LIVING CONDITIONS

1. HOUSING:

a. First living will be in pyramidal tents, pitched on cleared ground. Sleeping is on cots, under mosquito bars. Two wool blankets are used. Some air crews may get air mattresses.

b. Housing for Air Corps troops under existing conditions will usually be on an Air Corps installation and will range from a minimum of pyramidal tents with wooden floors to permanent concrete barracks. All housing at present has adequate latrine and mess hall facilities adjoining.

c. A marked influx of units to this area may necessitate billeting in pyramidal tents without floors and use of field kitchens. Units should have training in setting up under field conditions.

d. Construction of housing is simple and light since there is no cold weather to contend with. Due to the premium on shipping, troops must expect to live with a minimum of facilities, particularly during the early stages of base development. Standard base development will provide latrines, showers, operational buildings, mess halls and screened tent frames for all personnel. Flying personnel are authorized Quonset huts for living quarters when shipping becomes available. Ice is provided on the basis of $3/4$ pounds per man per day and refrigeration on the basis of one cubic foot per man. During initial occupation, however, standard T/E equipment, heavy tentage and a minimum of sanitary facilities only will be available. Troop units will normally be expected to assist in constructing their own housing.

2. FACILITIES:

a. Water and Laundry:

(1) In some places you will be using salt water for bathing and will have to collect rain water in which to bathe your person. Plan on getting used to chlorinated water for drinking.

(2) Salt water soap, a washboard, wash basin and a scrubbing brush will come in handy. In main installations there is usually a provision for laundry but it takes time to get it returned. Half a gasoline barrel with a fire under it cleans clothes nicely, providing you use plenty of G.I. soap. Helmets and cans also serve the purpose. This is one domestic department where you have to become self-reliant.

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- (3) Water supply is normally adequate except on the coral atolls where all drinking water must be distilled.
- (4) Scarcity of fresh water on many islands makes salt water bathing a necessity. Consequently, possession of bathing trunks or athletic supports are desirable, since the presence of service nurses and native women precludes nude bathing, while after dark swimming is usually prohibited by sanitary regulations.

b. Electric Current - Voltage is usually 110 DC. Bring along a few feet of electric cord and some plugs and two-way sockets if you have room.

c. Security:

- (1) Check your locality immediately to see if you need a slit trench or if a shelter is provided. Slit trench construction should be given number one priority. Personnel construct their own shelters. The Aviation Engineer Officer, or officer in charge of housing, will designate the areas to be used for these trenches and will assist by supplying tools and materials as available. For proper dispersal, shelters should be constructed for two, three or four men - four men are a maximum. In order to give the trench one or more angles for the absorption of concussion, the trench should be dug in the shape of an "L" or "Z". The end of the trench opposite the entrance should be sloped and left partially open as an aid against concussion. This end should be so constructed that it can be converted readily into an emergency exit. Use a covering of any material available, with sufficient strength to carry weight of sand bags and of length to allow over-lapping on the shoulders of the trench. Follow this with a covering of sand bags.
- (2) Personal Security - Don't bring your jewels over here. Leave your nice wrist watch at home unless it is waterproof. Rain and perspiration wreak havoc with watch mechanisms. Like all theaters where shipping space is at a premium, things get lost and delayed. A good rule is to bring what you need and can carry until you are permanently settled with an organization.

d. Messing:

- (1) It is a good idea to get on the vitamin tablet routine

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as fresh vegetables are served intermittently. Atabrine, salt and vitamin tablets are free issue - as many as you want.

- (2) Flight rations have been established by QM for all combat crew personnel and personnel engaged in long range flight missions. This ration is composed of many items, most important of which are: boned turkey and chicken, ham chunks, spreads, fruit juices, fruits, soups, candy and cookies.

3. JUNGLE HINTS:

- a. Stay out of the jungle. It may be interesting but you can pick up any number of particularly obnoxious ailments. Only go with someone who knows his way around.

- b. Do not eat any fish caught in lagoons unless the natives tell you it is okay.

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SECTION VI

FINANCE

1. As far as finance is concerned, only a very few things are listed as musts.

a. Officers going overseas to this theater should be particularly careful that they have one master copy of their service to accurately prepare statements of service. Payment of mileage and per diem requires copies of travel orders WITH ALL AMENDMENTS THERETO. Copy of new allotments will prevent forgetting on the part of officers. In general, it is suggested that officers keep a personal 201 file with at least one copy of every order, allotment blank and statement of service. Officers will also have to keep an exact itinerary of travel and temporary duty.

b. Every possible effort should be made to have enlisted men's service records completely up to date. All possible efforts should be made to clear up any discrepancies in pay prior to sailing. Finance activities in forward areas, like other services, are under difficult conditions. Anything that can be done at the POE or rear areas to lessen the difficulties in the forward areas will make military personnel and finance work more smoothly. In a forward area it is hard for Finance to find out whether John Doe's allotment was effective this month or last month because John Doe has forgotten.

2. Money is needed only when going on leave or furlough. Ten dollars American money is about the maximum you can spend per month unless you go in for gambling.

3. Arrangements are easily made for sending surplus money home through Finance.

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SECTION VII

MISCELLANEOUS

1. SOUVENIRS - Can be traded with natives, who like remnants of bright colored cloth. Three and one-half yards is the best exchange medium. Natives also like fish hooks and salt tablets, needles, thread and buttons. Native villages usually are off limits but the natives will look you up when they want to trade. Americans are inclined to overpay the natives. The best advice is for you to become familiar with conditions before starting to barter for native or Japanese trophies.
2. TRANSPORTATION - Vehicular traffic is right hand at all times for the present. (It is left hand in SWPA.) No matter where you go you will find people waiting for airplane rides and ground transportation. "Hitch-hiking" on the ground is approved method if you are not a Colonel or above. You will need orders and priorities to get anywhere fast by airplane.
3. TROPHIES - Read the regulations before you start collecting trophies. (See Censorship Section of this manual.) Stay away from old bomb duds and bomb dumps. Sympathetic deterioration may or may not be a theory.

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CHAPTER IV

MEDICAL

A Flight Surgeon's Advice to Air Force Combatants Coming to the Pacific Ocean Areas

1. PURPOSE: The following discussion is aimed to familiarize you, an incoming combatant, with certain factors in the Pacific Ocean Areas which will influence your life and welfare. Facts tend to dispel subconscious fear associated with anticipatory and half-imagined dangers, and it is felt a few tips on Pacific Ocean Areas environment will augment your powers of self-protection.

2. PHILOSOPHY:

a. Your success or failure as a combatant in this theater depends to a great degree on your fundamental philosophy or "frame of mind". As a representative of the American people, you personally declared war on Japan, and in so doing, assumed certain responsibilities and obligations. In order to discharge the debt effectively, you must have a strong sense of duty. Unlike the younger days of the war, you will be fighting on a winning team in the Pacific Ocean Areas. Our equipment, tactics and numbers are of proven superiority to the enemy's and your commanding officers are the type who continuously are solicitous of your individual welfare, whether you are a tail gunner or mess officer. Your odds of surviving a tour of duty as a combatant of the Air Force in this theater are well over one hundred to one, based on past experience. But "don't be cocky", the graveyard is full of folks who underestimated the shrewdness, cunning and fanatical courage of the enemy, or who minimized operational hazards. You will be hunting tigers, not rabbits. To increase your odds of survival, you must be tough physically and psychologically and remember, your own personal future is intimately interwoven with the conduct of the war in this area. The sooner the enemy is beaten, the sooner you will come home. Successful perpetuation of your part in the war effort demands that you be prepared to meet the enemy and nature. Make up your mind to be prepared, for if your services are lost through your own negligence in developing your potentialities you not only are dead or crippled, but you have failed your country. It is your job to take care of yourself in order to be a useful addition to our team. It is impossible to recommend a particular philosophy to you because you are an individual whose background, training and environment are unknown. However, a successful philosophy in this theater of war must contain valuable elements of a sense of patriotic duty and a determination to be prepared philosophically, psychologically and physically to meet all combat exigencies.

b. There are various types of philosophy or "frame of mind" which may be adapted to your character. Make an effort to select one which is best suited to you. The great majority of combatants assume

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one of the following attitudes under acute moments of danger:

- (1) Religious: Prayer, faith in God, etc.
- (2) Fatalistic: What is to be will be; if my number's up, that's that; you can die but once.
- (3) Superstition: Luck charms, prophecies, etc.
- (4) Emotional - Anger, Hate and Impatience: "The dirty little yellow ----- COME ON LET'S GET IT OVER WITH."
- (5) Rationalistic: (Evaluation of favorable odds for coming through with a whole skin.) "A one hundred to one shot is good enough for me; if the rest can do it, so can I; they are just as scared as I am."

3. PREPARATION:

a. Psychological: Of course, psychological preparation for combat duty in the Pacific Ocean Areas is related closely to philosophical preparation. However, readiness for duty does not stop with an attitude of "there is a job to do and I am going to do it." It is beneficial to know that this theater has in mind a definite tour of duty for you which is well within the range of your ability to complete. At the termination of this tour, you will be rotated out of the theater for rehabilitation insofar as the tactical situation permits. The mechanics of various tours depend on the amount of strain or effort imposed on you by circumstances and your job, varying whether you are a bomber or fighter pilot, are in the forward or rear echelon, etc. You can depend on commanders, flight surgeons, operation and personnel sections continuously being watchful for strains and expectations of effort which experience has taught you are unreasonable to expect from personnel. On the other hand, these people have been through the mill themselves the hard way and you will find in them no attitude of coddling or sympathy for any one "dogging it".

b. Physical: One of your best insurances for survival in this theater is a body toughened and hardened to endure the hardships of combat. If you are physically tough and know it, it will reflect on your entire outlook and morale. Airmen are not given the rigorous training that Ground Force combat troops are exposed to, although its importance is probably just as great. The tendency for all airmen in this theater is to neglect their physical fitness. Their health is good but their physical fitness is poor. Daily regular exercise is absolutely necessary to maintain toughness, both physically and psychologically.

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c. Intellectual: The fight for survival will be in your favor, assuming you are well informed in the subjects listed below:

- (1) Ditching and Ocean Survival: If it is your desire to grow old and have grandchildren, it is a good idea to expect the unexpected in this part of the world. Assume that your plane is not going to operate at maximum efficiency and as a result of this assumption give yourself a wide margin of safety at all times. However, accidents will occur despite all precautions and it behooves you to prepare for them. Every crew should work out thoroughly an operating procedure to be followed in case of ditching, with the position and duties of each man clearly defined. Concrete workable plans should be made for various types of missions, taking into consideration action to be accomplished if forced down on or near enemy held bases, the ocean, etc. The following references should be studied with care:

- (a) Survival on Land and Sea: (Office of Naval Intelligence, USN.)
- (b) Survival - Jungle, Desert, Arctic Ocean: (Office of Flying Safety.)
- (c) Castaways' Baedeker to the South Seas: (Joint Intelligence Center, POA.)
- (d) Dunking Sense: (Training Division Bureau of Aeronautics, USN.)
- (e) Forced Landing of Aircraft at Sea "Ditching": (AC/S, A-2 Seventh Air Force.)

- (2) In addition, every boy leaving mother for the Pacific Ocean Areas should know the following facts and resumes:

- (a) A full bladder and/or a full bowel greatly increase the risk of fatal complications in event of abdominal trauma from bullets, shrapnel, blows sustained while ditching, etc. The answer is obvious.
- (b) Know how to swim. There is an amazing amount of deep water in the Pacific Ocean.
- (c) There are places in an airplane about to be ditched which are relatively safe. Where are they?

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- (d) Good physical condition and a state of optimum nutrition pay off when it comes to playing a sailor in a rubber raft. Your food may not always be palatable, but consume it as medicine for maintaining maximum physical readiness.
- (e) It is wise to maintain a skin full of water when cruising around the Pacific Ocean. The body serves as a good storage tank. Drink up before taking off.
- (f) Ocean water can be mixed with drinking water in the ratio of one to three with no ill effects if the daily intake of ocean water is limited to six ounces. Ocean water by rectum is of no benefit, except perhaps in states of extreme, or bordering on fatal, dehydration.
- (g) How should you ration your water each day?
 - 24 ounces - if plenty available.
 - 16 ounces - if only a limited amount on hand.
 - 4 to 6 ounces daily will prolong life with discomfort.

It is possible to live six weeks, and often longer, without food but eight to twelve days is the limit without water. It is essential to minimize loss of water by evaporation from the body. This can be accomplished by rigging an awning on the raft, removing all unnecessary articles of clothing, and avoiding unnecessary exertion and sunburn.
- (h) Food must be eaten judiciously if daily water intake is limited. Rock candy is one of the best forms, while the flesh of fish, turtles and birds, especially if dried, should be avoided or greatly restricted, if the water ration is lower than a pint a day. It is a decided and obvious advantage to be well-nourished before undertaking an enforced fast. Caesar and flight surgeons prefer people to be a few pounds over the optimum average weight. The extra fat serves usefully as an emergency cushion.

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(i) People in the prairies of Kansas are not troubled much with "immersion foot" but it is a disease commonly seen in a life raft. Manifested by swelling of the feet, numbness and discoloration, it is produced by wetness and usually coldness of feet in which the circulation is sluggish. To prevent the appearance of "immersion foot" it is advisable to keep the feet as dry as possible and to stimulate circulation by moving the extremities, elevating them and gentle massage. But, after the symptoms have appeared, do not massage or heat. Elevation and dryness is the only treatment then.

(j) Hallucinations and illusions (seeing the little man when he isn't there) frequently occur after deprivation, thirst, hunger and fear in a raft. These manifestations are decreased by good morale, a very important prerequisite to survival. Leadership, discipline and harmony in a group afloat on a life raft are difficult to maintain, but necessary. An unusual, or long anticipated sight, such as a ship, plane, sea monster, etc. should be called to the attention of a companion quietly without naming the object sighted. After two or three confirmations, it is safe to announce the discovery to all. Avoid mass hysteria.

d. Climate: The condition of the atmosphere and its medical significance to human beings is for the most part an unexplored field. However, temperature, humidity and barometric pressure are known to have physiological and sometimes pathological effect. The climatic conditions in the Pacific Ocean Areas have much to recommend them. Air temperature is characterized by a small range of fluctuation - neither being very hot nor cold. The mean annual temperature at sea level is between 70 to 80 degrees Fahrenheit. The humidity is often high in the forward area and if you are older than 65, with rheumatism, you may develop complaints. The acclimatizing process necessary for troops in the desert and more tropical regions of the POA, consists in a gradation of initial exercise until tolerance for heat is developed. When perspiration is excessive, the salt intake must be adjusted by the use of salt tablets in the water to furnish a solution of .1%. This percentage is prepared by the following ratios of salt water:

20 grains or 1/4 tsp. to one canteen of water.
1/3 pound to a Lister bag.

4. SANITATION:

a. The most important time to treat a disease is before it is

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contracted. "An ounce of prevention is worth a pound of cure." One way to accomplish this is through knowledge and observance of the principles of sanitation. Sanitation is a command responsibility and a matter affecting the health and welfare of the entire command. The commanding officer's advisor on this important subject is the medical officer. Unfortunately, there is a tendency to underestimate the importance of sanitation in rear echelons. However, its importance often stands out with distressing clarity as soon as sanitation rules are broken in the forward area. Entire combat units may be rendered ineffective because of malaria, dengue, dysentery, etc. which can be traced directly to negligence in sanitary matters. Sanitation starts at home and only through the observance of sanitary measures by each individual can the sanitation of the entire unit be maintained.

b. Every unit commander, on the advice of his medical officer, will recommend and promulgate sanitation directives which you, as an individual, must scrupulously observe. Following are a few simple rules pertaining to sanitation which you should observe:

- (1) Do not mingle with natives.
- (2) Observe meticulous personal cleanliness; special attention should be given to the care of the feet. Socks should be changed daily after washing the feet and application of talcum or G.I. foot powder.
- (3) Do not eat in civilian messes of newly occupied territories.
- (4) Insist on your latrine and mess being fly proof.
- (5) Cooperate in all measures designed to protect you from mosquitoes.
- (6) Report to your flight surgeon immediately when feeling indisposed.
- (7) Drink only water which has been declared safe by competent authorities.

5. OXYGEN AND PERSONAL EQUIPMENT: "Familiarity breeds contempt", but don't become negligent from repetitious training in the use of oxygen and personal equipment such as flak suits, goggles, masks, helmets, etc. Flak suits and protective helmets especially are to be recommended as they materially increase your odds of survival.

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6. FIRST AID AND BANDAGING: Every person should be thoroughly familiar with the use of first aid plane equipment. Your training is pitifully inadequate if you are unable to control hemorrhage, treat shock, manage fractures, apply bandages, treat burns and give artificial respiration, as provided by instructions from your flight surgeon. If you are unversed in these subjects, take the initiative and insist on being trained in them.

7. DISEASE: (Not peculiar to Pacific Ocean Areas, but of sufficient importance to warrant brief discussion.) In addition to observance of sanitation rules, there is another way to treat diseases before you get them, namely by immunization. With this thought in mind, it is required that personnel in POA be immunized for small pox, typhoid, tetanus, yellow fever, cholera, typhus and plague. The incidence of fatalities from diseases in this war is approximately 90% lower than that of World War I. Immunization and sanitation have played a creditable role in producing this reduction in disease rates.

a. Chronic Fatigue:

- (1) There are numerous synonymous expressions to indicate an individual's physiological and psychological status resulting from monotonous repetition of physical and emotional stimuli. Some of these expressions are flying fatigue, combat fatigue, war weary, rock happy, stale, "missed too many boats", etc. The multitudinous stimuli which are incriminated for producing this condition are usually of the type that have a strong emotional coloring.
- (2) At this point, it may be advantageous to interject a word arbitrarily defining the terms "exhaustion" and "fatigue" as applied herein. Exhaustion is the feeling experienced by Strangler Lewis after sixty minutes of wrestling. Fatigue is what the spectators felt after watching the Strangler's exciting match. They did not move from their chairs, yet they were fatigued from emotional stimulation. In other and more scientific terms, an individual with flying fatigue experiences a physical and psychological phenomena as a result of emotional tension which is inhibited from translation into physical activity. In the above example, fatigue is acute, evanescent and easily dispelled by a drink of 7-Up, a swim, a meal, or a pretty blonde's trim ankle. However, after the individual is subjected to repeated status of acute fatigue in close sequence, a state of chronic fatigue develops and is the condition being defined.

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- (3) Chronic fatigue, then, is a physiological and psychological (bordering on pathological) state resulting from situations in which the individual is subjected to continuous stress and strain, usually emotional, but also physical, to a point beyond the individual's limit of maximum effort. The first symptom to indicate chronic fatigue in airmen is a loss of exhilaration in flying. The good pilot was never born who did not get a kick out of flying. The zest and keen enjoyment of being in the air are lost when chronic fatigue develops and it is replaced by a feeling that defying gravity is a drudgery and not fun. Accompanying the loss of enjoyment in flying is a washed-out, let-down apathetic feeling and attitude. About an equal number of cases, however, will evidence irritability, jumpiness, restlessness, and inability to concentrate. Insomnia is uniformly present and the little sleep obtained leaves the victim of chronic fatigue unrefreshed. Disturbed occupational dreams often occur. Loss of weight is probably the most important objective evidence of chronic fatigue and follows on the heels of anorexia and capricious appetite. Everyone is subject to chronic fatigue and regardless of the inherent stamina of an individual, the symptoms of the disease will develop provided the individual is exposed to the factors producing it. Air combatants in the Pacific Ocean Areas will be exposed to these factors continuously. Consequently, chronic fatigue is a condition which would be the greatest cause of attrition in Air Force personnel if commanders and flight surgeons had not learned the proper way of preventing and treating the symptoms.
- (4) There are two extremely important factors which each airman should know concerning prevention and treatment of chronic fatigue. First, morale is the most important factor concerned with the prevention of chronic fatigue. Morale is a command responsibility and is derived from a proper individual philosophy, a realization of the worthiness of the individual's and unit's part in the war effort, and the presence of a goal toward which all efforts can be directed. This goal is going home. The second important factor in the prevention of chronic fatigue is in systematic and routine physical exercise daily.

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- (5) As mentioned before, the chief factor in the production of chronic fatigue is the inability of the individual to translate emotional tension into the terms of physical activity. Therefore, it is obvious that one of the most important prophylactic measures to be observed is indulgence in physical activity so as to afford a release from the emotional tension accumulated on the mission.

b. Aeroembolism: (Bends - Chokes) Aeroembolism is a condition occurring in people who are exposed to a decrease in barometric pressure while ascending to altitudes in excess of 25,000 feet. The symptoms of the disease are produced by bubbles of nitrogen gas which are released in the blood stream and extra-vascular tissue, especially in and around joints, on the surface of long bones, in the lungs, and the skin. The symptoms produced consist of a deep boring pain around joints and over bones, shortness of breath (chokes), a heavy feeling under the breast bone, blue discoloration of the face and a tingling sensation over surfaces of the body at different points. It can be prevented by any method which removes the nitrogen gas from the blood stream. This is accomplished by inhalation of pure oxygen prior to being exposed to the lower barometric pressure.

c. Anoxia:

- (1) When the body is deprived of oxygen, the condition is known as anoxia, manifested by dizziness, feeling of unreality, exhilaration, unconsciousness and death. The length of time necessary to produce death at various altitudes is extremely variable as illustrated by known instances of death occurring in five minutes at 25,000 feet and with survival at 28,000 feet after forty minutes.
- (2) Anoxia accidents most frequently involve tail gunners and ball turret gunners and are attributable to inadvertent disconnection of the mask regulator connection, freezing, mask leaks, etc. and inadequate oxygen indoctrination. Altitude training and indoctrination must be continuous to insure maximum benefit.
- (3) Treatment consists in immediate administration of oxygen with artificial respiration.

d. Dysentery:

- (1) Hippocrates, the father of medicine, defined diarrhea as the frequent passage of liquid stools, whereas dysentery is the same condition plus tenesmus,

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(straining at the stool), mucus and blood in the stool. There are two types of dysentery, one being produced by amoebi, and the other by bacilli. The disease produced by the latter organism ranks with malaria in its world-wide significance. It is always present during war and famine. It completed the rout of Napoleon's Army in its retreat from Moscow. Dysentery, and not the "Terrible Turk", drove the British from Gallipoli. It killed about 140,000 Germans during the first war and is a factor to be taken into consideration before any of the enemy's secret weapons.

- (2). Observance of sanitary rules is of cardinal importance in the prevention of dysentery. Scrupulous cleanliness of the mess gear, hands, food, water and environment is absolutely necessary. The degree of cleanliness required is impossible to obtain without control of flies. It is obligatory for every individual to observe all precautions and measures designed to promote cleanliness and decrease fly population. It is essential, likewise, for everyone with the symptoms of dysentery to report immediately to a medical officer to prevent the spread of an epidemic in the command. The disease is well controlled by modern-day drugs, provided treatment is started early.

e. Dengue: Dengue is a disease occurring suddenly with fever, headache and backache. It is produced by mosquitoes, and unless this insect is controlled by insecticides, repellents and nets, the entire command can develop the disease in a short period of time, rendering it ineffective. The symptoms vary greatly in intensity; sometimes being so minor as not to necessitate going to bed, and at other times so severe as to require hospitalization. The symptoms of the disease last from seven to ten days and are accompanied by very low mortality - approximately one in ten thousand.

f. Infectious Hepatitis: (Jaundice). Some doctors are always a little embarrassed to discuss a disease about which knowledge is meagre, and such is the case with jaundice. It is apt to appear suddenly in large numbers equalling epidemic proportions. There are two factors worthy of consideration in any discussion of this condition. First, it is necessary to observe rigid sanitation with reference to food and water. Secondly, once the symptoms have developed, early and prolonged rest is the best treatment. Jaundice can be produced also as a result of a specific disease caused by an organism contained in the urine of rats. Measures necessary to prevent this disease are self-explanatory in a consideration of the cause of the disease.

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g. Filariasis: Filariasis is a disease found in many parts of the Pacific Ocean Areas, being produced by a worm transmitted by the bite of the house or common mosquito and occasionally other biting insects. The danger from this disease is not great and consists for the most part in its psychological aspects. Since it is commonly associated with swelling of the extremities and organs of reproduction, there are many wild stories in circulation pertaining to procreation and allied activities. The disease has serious potentialities only when an individual is exposed several times, requiring many years. On being removed from the location where the disease is apt to be contracted, the individual is able to overcome the disease automatically. The symptoms are produced by an obstruction of the lymphatic system by the worms and disappear if the involvement does not become too wide spread through repeated infections. Rumors of resulting sterility, etc. are false.

h. Malaria:

- (1) A particular species of mosquito carries death to two million people annually -- a death ushered in by chills, fever and other unpleasant manifestations. It is merely a question of time until all individuals stationed in a malarious district will contract the disease. Fortunately, however, the treatment of malaria represents one of medicine's triumphs so that deaths rarely occur, providing treatment is started early. Prevention of malaria necessitates rigid mosquito control in addition to thorough training in discipline in regards to malaria prevention. Troops in malarious districts should religiously abide by all rules designed to prevent malaria. These rules pertain to water drainage, mosquito repellents, nets, use of DDT and suppressive treatment with atabrine. Being smart is an important attribute in escaping the blight of malaria.

8. SUMMARY: Free advice is offered to expectant combatants of the Pacific Ocean Areas relative to:

- a. Philosophy, psychology and mental hygiene.
- b. Desirability of physical fitness.
- c. Advantage of being well informed in methods of preventing diseases, sanitation, first aid and bandaging, ditching and ocean survival, and use of personal equipment.

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CHAPTER V

INTELLIGENCE

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SECTION I

FLAK INTELLIGENCE

1. Functions of Flak Intelligence in the Army Air Forces, Pacific Ocean Areas fall into the following categories:

- a. To provide, in the planning phase of each mission, a complete analysis of enemy AA defenses of the objective to be attacked. This analysis includes favorable and unfavorable axis of attack and withdrawal, necessary evasive action and consideration of altitude and its effect on enemy AA fire.
- b. To provide information on the number, location and types of enemy AA weapons and data on the capabilities and limitations of such weapons and allied fire control equipment.
- c. To conduct continuous study of AA fire encountered and the effect of evasive action and different methods of attack used to minimize effectiveness of this fire.
- d. To acquaint combat crews with capabilities and limitations of enemy AA weapons and to familiarize the crews with evasive action which will reduce the effectiveness of enemy AA fire.

2. Flak Intelligence Officers are assigned to intelligence sections of all commands in order to accomplish the functions of Flak Intelligence. These officers, formerly of the Anti-Aircraft Artillery of the Coast Artillery Corps, have received special training in Flak Analysis and, in most cases, attended the AAF Air Intelligence School.

3. In Army Air Force units in the Pacific Ocean Areas, the following terms are used in referring to enemy anti-aircraft fire and weapons:

- a. Intensity (or volume) of fire is referred to as INTENSE, MODERATE, or MEAGER.
- b. Accuracy of fire is designated as ACCURATE or INACCURATE.
- c. Type of AA fire encountered is referred to as CONTINUOUSLY POINTED, PREDICTED CONCENTRATION, or BARRAGE fire.
- d. Weapons are referred to by terms which describe both type and size, viz:

Heavy Guns (75 mm. and above)

Automatic Weapons (20 mm. to 40 mm. inclusive)

Machine Guns (7.7 mm. to 13.2 mm. inclusive)

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Note: Corresponding NAVY terms used in designating type and size of weapon are:

Heavy Guns (75 mm. and above)

Medium Guns (20 mm. to 40 mm. inclusive)

Light Guns (7.7 to 13.2 mm. inclusive)

4. Information on locations and capabilities of enemy radar is disseminated in order to assist in planning mission. This information is furnished monthly and is compiled by a joint radar board in the theater headquarters.

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SECTION II

MISCELLANEOUS

1. COUNTER-INTELLIGENCE AND SECURITY:

a. All personnel are directed to keep on the alert for incidents which might indicate activity by enemy agents either through attempted sabotage, spread of harmful rumors intended to create dissatisfaction among military personnel, attempted espionage, or agitation on behalf of an enemy country or government. Suspicious incidents should be reported immediately to an intelligence officer who will take necessary action to inaugurate investigation.

2. RELATIONS WITH NATIVES:

a. The Polynesian and Melanesian natives of the Pacific Islands have proved to be almost invariably sympathetic to U.S. forces and incidentally not unwilling to receive such of the effects of western living as grateful American airmen may be willing to dispense. The few exceptions to this rule are found on the few islands which have long been under Japanese domination, and even here in some instances Anglican missionary efforts have made the simple natives favorably disposed toward us. Most of the Pacific Islands of any size at all are inhabited and rescue of Allied airmen has been greatly facilitated by native aid.

b. The Bonin and Volcano Islands between the Marianas and Japan, however, are inhabited only by Japanese who immigrated from the main islands during the 19th century. As on Saipan these are a very simple peasant folk whose well-publicized fanaticism is apt to be tempered with a more basic will to live.

c. Formosa, on the other hand, is populated by nearly six million people, the majority of whom are Chinese, who may be found to be in many cases genuinely sympathetic to the Allied cause. The Hansai Shot to the north is inhabited by a mixed racial group, neither Chinese nor Japanese, and their reaction to Allied activity cannot be told as yet. In the southern part of the chain old, deep-rooted anti-Japanese attitudes are known to exist.

d. What the relations of Allied forces with the civilian Japanese population of the main islands will be can be only conjecture at this stage of the war.

3. RETENTION OF CAPTURED ENEMY MATERIAL:

a. The Director of Intelligence, Headquarters, AAFPOA on behalf of the Joint Intelligence Center, POA, will assist in the collection,

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examination and disposition of all enemy material captured by units of the Army Air Forces, Pacific Ocean Areas. Every item of enemy military or naval equipment, material or supplies is potentially or actually of intelligence value in training and indoctrination of troops, and as such must be preserved for study by properly trained personnel.

b. All captured material and documents are defined by Army Regulations as government property and as such must be used to their utmost for the benefit of our forces. Articles of War 79 and 80 provide that if individuals subject to military law are guilty of misappropriation of captured material and documents, they will suffer such penalty as a courts-martial may direct. However, certain items may be retained as souvenir pieces if they are first submitted to an Intelligence Team and stamped by them as "Examined in the Field and Passed by Joint Intelligence." Items not passed by the team must be submitted by them to Joint Intelligence Center for further study. In the latter case every effort will be made to return the items to finders as soon as they are no longer of intelligence value.

4. JAPANESE SHIPPING - JMST:

a. Japan being dependent upon sources in the Netherlands East Indies and other occupied areas for many raw materials, these necessarily must be moved by ship to the homeland. Defense of the Japanese Island Empire is also dependent upon supplies reaching the garrison forces. Japanese shipping therefore has been and continues to be a priority target in the Pacific Ocean Areas.

b. Uniform specific reports regarding the characteristics of enemy shipping are essential, particularly as several theaters and services are reporting. The standard system of JMST recognition is described in detail in the War Zone Familiarization Manual for the Southwest Pacific Area, previously compiled.

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SECTION I

GENERAL

1. AIRDROMES:

a. Except in rare instances, during the earliest periods immediately following amphibious landings, pilots and combat crew members coming to duty in the Pacific Ocean Areas Theater of Operations may expect the use of reasonably good airdromes having paved-surface runways (coral, concrete or asphalt), 5,000 or more feet in length, with usually adequate taxi-ways and hard-stands. Either revetments or dispersal areas may also be expected in most cases.

b. Details of Airdrome Conditions to be Expected:

- (1) In certain groups of volcanic origin, notably the Hawaiian Islands and the Marianas, occasional strips are encountered which have hazards at runway ends that may necessitate relatively short, high approaches. These are the exception rather than the rule, however, and for the most part, particularly as concerns the many airdromes located throughout the area on small coral atolls, runways extend from ocean to ocean. Left hand traffic patterns predominate but approach patterns for individual fields vary greatly due to geographic and/or operational causes. Thorough individual briefing and indoctrination study will be necessary for all newcomers to the theater. Naturally, restricted areas also vary from airport to airport.
- (2) Runway construction and repair work by Engineer Aviation troops in the theater is of superior quality and it will be seldom that crews find soft or dangerous runways. On many islands, however, the inevitable tropic rainy seasons make for almost constant mud and soft ground anywhere but on the actual paved surfaces. Repairs of bomb-craters due to enemy action occasionally cause temporary soft spots on some runways in the forward areas.
- (3) Although lack of space in many cases necessitates limitation to one landing strip or two parallel strips on atoll airdromes, these are normally constructed according to prevailing headwinds. Necessity for crosswind landings is consequently infrequent. Airdromes on the larger islands often have multi-directional landing strips.

2. AIR RAID ALARMS:

- a. Warnings of "alerts" or air raid alarms normally originate with

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the individual Fighter Control Centers concerned (which may be AAF, Navy or Marine in POA), and are relayed to all organizations in the area by field telephone and by siren. On islands where strong winds prevail and danger exists that some organizations might not hear the stationary siren, patrolling jeeps equipped with auxiliary electric sirens are also utilized.

b. Crews of aircraft returning from operational missions or approaching airdromes for other reasons are cautioned to make full use of IFF or other identification devices or procedures, both for the safety of the aircraft concerned and to avoid needless waste of time and energy of troops on the ground occasioned by useless "false alarm alerts".

c. Types of Alerts:

- (1) Condition of Readiness "A" (Red): This condition of readiness will be ordered when a major attack is imminent. All units will be prepared for maximum combat effort. All pass or rest privileges will be cancelled. All personnel will be maintained at battle stations or in the immediate vicinity thereof, so as to be ready for action in a minimum of time. Black-out will be complete.
- (2) Condition of Readiness "B" (Blue): This condition of operational readiness will be ordered when there is a possibility of minor sea or air attack, raids, or sabotage. Observation post and intelligence personnel will be especially alert.
- (3) Condition of Readiness "C" (White): This is the normal condition of operational readiness for the majority of units in all areas. Continuous observation is maintained over water areas. Normal duties (including field fortification work, field exercises and training) in applicable areas are carried on. Units may be released from field positions for training and recreation as prescribed in current orders. Normal pass privileges in applicable areas are in effect.
- (4) Provisions of sub-paragraphs (1), (2) and (3) above apply to POA Theater of Operations in general. Indoctrination in the functioning of special local "alert" and defense regulations should be secured by crew members at each airdrome they report to by assignment or as transients.

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3. RECOGNITION PROCEDURE:

a. In general, recognition procedure in POA follows that of any other theater, and new crews in the area will find that their normal training will have prepared them to grasp its details in a minimum of time. Military security precludes a detailed discussion in a manual of this nature.

b. A brief outline of types of POA recognition signals follows:

- (1) Aldis Lamp: This is the most common method of signalling for recognition, particularly in the forward areas. Specific classified "signals of the day" will always be included in briefing.
- (2) Pyrotechnics: Used only in cases of extreme emergency.
- (3) Radio: By procedure more or less standard throughout the area. (See Communications Chapter.)
- (4) Aircraft Recognition Turns: Vary from day to day. Specific instructions contained in briefing and in Pilots' Operational Folders.
- (5) Flashing of Running Lights: As per instructions in briefing.

c. Specific instructions as to prohibited quadrants of approach or approach from out of the sun must be rigidly adhered to, particularly in combat areas.

4. GUARDING OF AIRCRAFT:

a. The security of aircraft at army bases in the Pacific Ocean Areas is the responsibility of the base commanders only when sufficient personnel is available to enable the base commander to maintain permanent airplane guard. Therefore, the security of aircraft against sabotage, pilferage and tampering at all times rests with flight commanders, airplane commanders and pilots, whether or not base guards are available.

b. At bases where adequate airplane guard is not maintained by the base commander, at least one member of the crew will remain with an airplane at all times. In some instances, bases will furnish night guard, in which case the posting of crew members will not be necessary during the hours such guard is maintained.

c. Parking, taxiing and servicing of an airplane will be supervised at all times by a responsible member of its crew.

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5. CAMOUFLAGE:

- a. Camouflage is not stressed because of our air superiority.
- b. As bases are built nearer the Japanese homeland, however, more emphasis will be placed on camouflage.

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SECTION II

ENGINEERING AND MAINTENANCE

Although engineering and maintenance facilities of POA are excellent in rear areas, notably in the Hawaiian Islands where Hawaiian air depots and sub-depots are located, the vast areas comprising this theater and the necessity for building the majority of airdromes on small Pacific Islands make engineering and maintenance, in general, increasingly difficult the farther forward (or westward) airplanes are required to operate. Therefore, with no intent to infer the existence of seemingly insurmountable maintenance difficulties in this theater but rather to present a forehand knowledge to personnel destined for service here of problems that will face them upon arrival, the following paragraphs are included. Maintenance conditions that are peculiar to this theater, in comparison with those generally existing on the Mainland, are outlined below.

1. SALT WATER CORROSION:

a. It is not necessary for a metal part to be in contact with sea water in order to be attacked by salt water corrosion. Microscopic particles of salt, possibly originating from breaking waves or the surf on the shore, are carried to great heights and great distances inland by the wind. This type of corrosion is frequent on the airplane skin, instruments such as gyro horizon pivots, external surfaces of engine cylinders, and on guns. Skin areas that are subject to the erosion of dust in propeller blasts, such as engine nacelles and empennage surfaces, are the most actively attacked. High temperatures appear to accelerate the corrosion of engine cylinders. Instruments are severely affected by a slight amount of corrosion. Protective coatings of light oil are difficult to maintain on guns due to heat of firing and the exposed locations in which they are mounted.

b. Paint has been found reasonably effective and coatings of light oil are temporarily effective in preventing corrosion. Gyro horizon air filter elements are changed every fifty hours regardless of their appearance. Inspections of these are more frequent and more thorough than in some other theaters.

2. LONG OVER-WATER FLIGHTS:

a. Nearly all flights are over water, resulting in demands from crews for a high level of maintenance. Undesirable engines are changed prematurely regardless of whether or not they show a definite fault or failure. Some missions in this theater have required as much as twelve hours or more for completion.

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3. CORAL DUST:

a. This dust is very abrasive and is prevalent at all flying fields during dry weather. It adheres to lubricant covered surfaces, such as extended hydraulic rods, control cables and pulleys, and landing gear pivots, resulting in premature deterioration of hydraulic packings and freezing of control pulleys.

b. Dust excluder plugs for air rams and exhaust openings are a necessity. One set of engine, propeller, and canopy covers and two sets of dust excluder plugs should be supplied with each airplane.

4. NECESSITY FOR SELF-SUFFICIENCY:

a. Work space is sometimes very limited, so maintenance is done in revetments wherever available. Parts and tools, if not on hand, are hundreds of miles away. ATC delivers small parts for grounded airplanes, but engines are almost always delivered by water and are received at certain forward bases as much as a month after requisitioning. Many repairable parts are returned to overhaul facilities by water, resulting in much delay and frequent deterioration due to corrosion of the parts.

b. Second echelon activities improvise regularly and frequently do fourth echelon work.

5. LACK OF LOW GROUND TEMPERATURES:

a. Low ground temperatures have never been encountered in this theater. No wing or propeller icing has been encountered and wing, propeller, and windshield de-icers are not carried on the airplanes. Windshield defrosters are necessary on fighters, due to frosting during fast descents. Oil dilution systems are safe-tied off but not removed. Good cockpit heating systems are required at high altitudes.

6. HIGH HUMIDITY AND INTENSE RAINS:

a. There is no shelter for parked airplanes. In the forward areas, maintenance work is done in the open with the result that water leaks into airplanes and is particularly damaging to radio installations. Junction boxes and jack boxes are more frequently affected than the transmitters or receivers. Canvas covers are frequently improvised for components of radio installations.

7. OVERLOADED AIRPLANES:

a. Overloading is a regular practice in POA Theater of Operations in order to have sufficient fuel for long missions. Engine life is

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thus shortened due to take-off power being used for longer periods of time and due to cruising at abnormal power settings for fuel economy purposes.

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SECTION III

FLYING CONTROL

1. Toward the end of attaining maximum efficiency in flight control procedures, it has been the policy in the Army Air Forces Pacific Ocean Areas to disseminate and promulgate all matters of reference concerning this vital subject to the pilots and crews in this theater. To effect the foregoing, close coordination with CINCPAC (Navy Headquarters) has been achieved.
2. The Navy, through the Hawaiian Sea Frontier, has published such material as "Army and Navy Air Traffic Patterns for Island of Oahu and Appendix Including Islands of Kaunai, Maui, Molokai, and Hawaii; also French Frigate Shoals." Further, through the Air Navigation Office, air route manuals and guides, covering the entire Pacific Ocean Areas, have been published. The Army Air Forces maintains and publishes CEPARG (Central Pacific Air Route Guide) which is kept up to the minute through notices to the various operating organizations under the jurisdiction of AAFPOA. CEPARG is being replaced, at present, by a consolidated manual published under the jurisdiction of the (Navy) Air Navigation Office. Further, NATAPOA (Navigational Aids to Aircraft Pacific Ocean Areas) is published and distributed by the Director of Communications, AAFPOA. Radio facility charts, navigation maps, etc. are also published.
3. Insofar as is practicable, Army Air Forces Regulations relative to traffic control and air traffic rules are followed implicitly. AAFPOA publishes regulations and memoranda to stress certain points and correct difficulties as they develop, thus assuring flying safety. Control towers are manned by personnel of the AACS and flying fields are lighted and maintained as directed by current Army Air Forces Regulations.
4. Through the Oceanic Air Traffic Center and the Pacific Wing, Air Transport Command, proper briefing, weather and radio instructions are issued crews departing from rear areas on over-water flights. This has proved to be a most desirable method, as the facilities of the forenamed agencies are superior in the respects indicated.
5. Flights between POA and the Mainland and between islands within POA are "PX'd" from station to station and search missions are immediately organized for overdue aircraft.
6. The overall picture of flight control in the Pacific Ocean Areas is good. Of course, there remains, as always, room for improvement but with the attention that is being directed along these lines, it is felt that the outcome will be most effective.

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PACIFIC TIME DIAGRAM

Times given are those on which areas are or will be operating and do not always agree with Standard Time Zone Designations for these areas.

± 0 Zebra	-6½ Fox - George	-7 George	-8 How	-9 Item	-9½ Item-King	-10 King	-11 Love	-11½ Love-Mike	-12 Mike	+ 12 Yoke	+11 X-Ray	+ 10½ Wm.-X-Ray	+10 William	+ 9½ Victor -Wm.	+ 9 Victor	+ 8 Uncle	+7 Tare	+ 4 Queen	± 0 Zebra	
Greenwich	S.E. Asia Command Andaman Is. Burma Ceylon Cocos India Malaya Nicobar Singapore Sumatra	China Formosa Indo-China Thailand	Australia-W. Fremantle Perth Borneo Celebes Java Korea Philippines Timor	Halmahera Japan Karafuto Kuriles Nansei Shoto W. Carolines Palau Ulithi Yap	Australia Central Adelaide Pt. Darwin	Admiraty Is. Australia-E. Brisbane Sydney E. Carolines Marcus Marianas Nanpo Shoto New Guinea Vladivos- tok	Efate Emirau Espiritu Santo Gilberts Green Marshalls New Britain New Caledonia New Ireland Sta. Cruz Solomons Wake	New Zealand Norfolk	Fiji Is. Kamchatka Tongatabu [#] [#] Special Time-add 19 min. to Mike Zone Time	Ellices Midway	Aitutaki [#] Baker Canton Penrhyn Samoa Wallis [#] Special Time-add 22 min. to X-Ray Zone Time	Johnston I.	Aleutians Borabora Nome Pribilofs St. Matthew St. Lawrence	Christmas Hawaii Palmyra	Anchorage Bethel Cordova Fairbanks Kodiak Seward Valdez	Juneau Ketchikan Sitka Skagway	Los Angeles San Diego S. Francisco Seattle W. Coast	New York Phila. Wash., D.C.	Greenwich	
SAME DATE AS GREENWICH										GREENWICH DATE MINUS ONE										
0000	0630	0700	0800	0900	0930	1000	1100	1130	1200	1200	1300	1330	1400	1430	1500	1600	1700	2000	0000	
0100	0730	0800	0900	1000	1030	1100	1200	1230	1300	1300	1400	1430	1500	1530	1600	1700	1800	2100	0100	
0200	0830	0900	1000	1100	1130	1200	1300	1330	1400	1400	1500	1530	1600	1630	1700	1800	1900	2200	0200	
0300	0930	1000	1100	1200	1230	1300	1400	1430	1500	1500	1600	1630	1700	1730	1800	1900	2000	2300	0300	
0400	1030	1100	1200	1300	1330	1400	1500	1530	1600	1600	1700	1730	1800	1830	1900	2000	2100	0000	0400	
0500	1130	1200	1300	1400	1430	1500	1600	1630	1700	1700	1800	1830	1900	1930	2000	2100	2200	0100	0500	
0600	1230	1300	1400	1500	1530	1600	1700	1730	1800	1800	1900	1930	2000	2030	2100	2200	2300	0200	0600	
0700	1330	1400	1500	1600	1630	1700	1800	1830	1900	1900	2000	2030	2100	2130	2200	2300	0000	0300	0700	
0800	1430	1500	1600	1700	1730	1800	1900	1930	2000	2000	2100	2130	2200	2230	2300	0000	0100	0400	0800	
0900	1530	1600	1700	1800	1830	1900	2000	2030	2100	2100	2200	2230	2300	2330	0000	0100	0200	0500	0900	
1000	1630	1700	1800	1900	1930	2000	2100	2130	2200	2200	2300	2330	0000	0030	0100	0200	0300	0600	1000	
1100	1730	1800	1900	2000	2030	2100	2200	2230	2300	2300	0000	0030	0100	0130	0200	0300	0400	0700	1100	
1200	1830	1900	2000	2100	2130	2200	2300	2330	0000	0000	0100	0130	0200	0230	0300	0400	0500	0800	1200	
1300	1930	2000	2100	2200	2230	2300	0000	0030	0100	0100	0200	0230	0300	0330	0400	0500	0600	0900	1300	
1400	2030	2100	2200	2300	2330	0000	0100	0130	0200	0200	0300	0330	0400	0430	0500	0600	0700	1000	1400	
1500	2130	2200	2300	0000	0030	0100	0200	0230	0300	0300	0400	0430	0500	0530	0600	0700	0800	1100	1500	
1600	2230	2300	0000	0100	0130	0200	0300	0330	0400	0400	0500	0530	0600	0630	0700	0800	0900	1200	1600	
1700	2330	0000	0100	0200	0230	0300	0400	0430	0500	0500	0600	0630	0700	0730	0800	0900	1000	1300	1700	
1800	0030	0100	0200	0300	0330	0400	0500	0530	0600	0600	0700	0730	0800	0830	0900	1000	1100	1400	1800	
1900	0130	0200	0300	0400	0430	0500	0600	0630	0700	0700	0800	0830	0900	0930	1000	1100	1200	1500	1900	
2000	0230	0300	0400	0500	0530	0600	0700	0730	0800	0800	0900	0930	1000	1030	1100	1200	1300	1600	2000	
2100	0330	0400	0500	0600	0630	0700	0800	0830	0900	0900	1000	1030	1100	1130	1200	1300	1400	1700	2100	
2200	0430	0500	0600	0700	0730	0800	0900	0930	1000	1000	1100	1130	1200	1230	1300	1400	1500	1800	2200	
2300	0530	0600	0700	0800	0830	0900	1000	1030	1100	1100	1200	1230	1300	1330	1400	1500	1600	1900	2300	
	GREENWICH DATE PLUS ONE									SAME DATE AS GREENWICH										

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SECTION I

GENERAL INSTRUCTIONS

1. IN-FLIGHT PROCEDURES:

a. Transmissions:

- (1) Maintain radio silence until called by the ground station unless emergency exists.
- (2) The liaison transmitter will remain OFF except when in actual use for transmissions.

b. Codes:

- (1) Andusmet cipher and WAF-2 code used
 - (a) By aircraft and ground stations for weather transmissions,
 - (b) To decipher hourly weather broadcasts.
- (2) UCOPAC used
 - (a) To obtain terminal weather for AACS control towers.
- (3) CSP-1270 (Current Series) Pacific Edition, used
 - (a) For all messages not employing "Q" signals,
 - (b) For position reports not sent in conjunction with weather reports,
 - (c) For authentication of "CW" traffic.
- (4) Clear and coded text will never be mixed in the same message. ("Q" signals are clear text.)
- (5) Substance and sense coded message should never be referred to in clear.

2. REPORTS:

a. Time: Zone zero (Greenwich time will be used in the headings of all messages. Hawaiian Islands are in Zone plus 9-1/2 hours; Canton is in Zone plus 11 hours; Johnston is in Zone plus 10-1/2 hours; Gilberts are in Zone plus 12 hours and the Marshalls are in Zone minus 11 hours.)

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b. Encryption of Messages: All messages will be encrypted in current issue of CSP 1270 series excepting under the following conditions:

- (1) When time factor does not permit.
- (2) When interception is of no value to the enemy.
- (3) On aircraft Voice circuits (VHF, Command).
- (4) Emergency communications.

c. Contact Reports:

- (1) Report all contacts in current CSP 1270 series, of submarines, destroyers, or aircraft. Never report on the air, or imply, positions of friendly forces or units unless ordered to do so. Shore bases will always "Roger" for messages. If no receipt is received, broadcast the information four times, listening for a receipt between broadcasts.
- (2) An urgent "O" classification will be given to all reported contacts. An operational priority will be given all other messages.
- (3) Anticipate enemy deception. AUTHENTICATE all contact and amplifying reports.
- (4) To be of any value contact reports must contain the following information:
 - (a) Number and type of enemy "WHAT"
 - (b) Position of enemy in latitude and longitude, or distance and bearing from a known geographical position "WHERE"
 - (c) Course and speed of enemy "WHENCE"
 - (d) Time of report. The Zebra time group of the message will serve to indicate time of contact "WHEN"

Make an amplifying report if above data cannot be supplied in first report. Each originator shall end all amplifying reports with the same time group (four numerals plus designating letter) as used on the initial contact report.

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- (5) Contact reports will be handled by the "R" method unless the condition of radio silence in effect at the station which receives the report prevents. Shore bases shall show originator in heading when retransmitting contact reports in order to indicate clearly that it is an original sighting report with time of origin being time of contact.
- (6) Aircraft contact reports should be broadcast if, after calling the ground station twice, no answer is received from the ground station.

d. Final ETA:

- (1) Will be sent in the clear using "QAA" followed by time - position will not be included. If IFF is not working, or if plane's ETA is more than 1/2 hour at variance with original ETA when 200 miles from any island in the Hawaiian group, the plane will originate a coded message stating:
 - (a) POSITION
 - (b) ETA
 - (c) APPROACH LANE TO BE USED (OAHU).

3. RADIO DISCIPLINE:

- a. Within the first half hour after take-off, airplane flight leader will make a routine check. After check has been made, strict radio silence will be maintained, except in an emergency. In an emergency, open up in the clear with everything at radio operator's disposal.
- b. An initial breach of radio silence, except in an emergency, will not be construed as a license to break radio silence further. Do not endanger your flight and other flights by breaking radio silence.
- c. Pilots and radio operators will refrain from "chattering" or making unnecessary transmissions. This practice "jams" the circuit and betrays your positions.
- d. Assignment of precedence must be in keeping with the true importance of each dispatch.
- e. Pilots must avoid alarming an entire flight unnecessarily. If you wish to warn another airplane of impending danger, precede your transmission by a call. To broadcast "there's a ZERO on your tail" diverts the attention of all pilots within hearing distance and may

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spoil their operations at crucial moments. Prefixing a specific call to such a transmission would serve in great measure to isolate that warning to the individual concerned. Remember, too, that "Tojo" can say "Smitty" or "Joe" as easily as you can.

4. RADIO SILENCE:

a. Long range search and reconnaissance aircraft should maintain radio silence except under the following conditions:

- (1) Contact and amplifying reports.
- (2) Emergency traffic involving operational safety of the aircraft.
- (3) Rescue work.
- (4) As directed by the parent base for operational purposes.

b. Strike and bombardment aircraft may break radio silence at discretion after their objective is reached in order to transmit appropriate operational information and in case of failure to reach objective.

c. Aircraft group and squadron commanders must enforce rigid circuit discipline on all aircraft circuits.

d. Radio and communication equipment in aircraft will be tested and tuned only on the ground using lowest power possible consistent with thorough testing and tuning. No call letters or other expressions which may indicate location or type of aircraft shall be used. General testings and tuning of aircraft radio equipment will be conducted at NOON daily as required. General testing and tuning by a flight immediately before take-off is prohibited.

5. RADAR SILENCE:

a. Condition of radar silence will not be imposed except to reduce interference in a large formation or as indicated in (c) below.

b. All conditions of radar silence are removed when in contact with the enemy.

c. Commanders of forces, groups or units operating independently will keep at least two air search type radars in operation within their force, group or unit in daytime, and at night if in the area of operations. They may, however, prescribe radar silence with air

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search radars while approaching enemy territory for surprise attacks if they consider it safe to do so.

6. RADIO INTERFERENCE:

a. Strong enemy interference should be expected on all circuits. This has not been very successful previously in disrupting our communications when our operators have not become panicky. In any case, simply to shift frequency is not enough as it tells the enemy that his jamming is successful. If enemy interference becomes so effective that it is impossible to copy through it, the following steps may be taken:

- (1) If only a single transmitter or receiver is available there is danger that the signal, from the officer controlling the circuit, to shift to the Secondary frequency may be missed. In such cases, each station should shift to the Secondary every minute of the hour which is divisible by five and listed on the Secondary for forty-five seconds. When it has been determined that the Secondary frequency is being used, shift your transmitter to that frequency.
- (2) Particular alertness must be maintained on the possibility of Jap stations receipting for traffic.

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SECTION II

RECOGNITION - IDENTIFICATION

1. AUTHENTICATORS:

a. Use authenticators:

- (1) If you suspect enemy deception.
- (2) In answer to a request for authentication.
- (3) On all contact and amplifying reports.
- (4) On all radiotelegraph (key) plain language or transmissions.

b. Radiotelegraph (key) authentication:

- (1) Avoid authenticated replies based on "R" or "K"; use rather a prosig such as "QSA 5".

- (2) Prosigs to be used in these transmissions:

QLA - "Authenticate your message."

QPA - "Authentication challenge is _____ based on time in the time zone indicated by suffix letter separated by space sign."

QKA - "Authentication of this message (or transmission) is _____."

- (3) Systems to be used:

Shore based aircraft and their bases use effective edition of CSP 1270.

c. Radiotelephone (voice) authentication:

- (1) To challenge, transmit "Say again and authenticate", or "Authenticate your last transmission."
- (2) Use of Shackle Authentication System (Annex F to Cent Com Two) may be directed.

d. Shackle Authenticator System:

- (1) The "Shackle" Cipher (Annex "F" to Cent Com Two) is used as an authenticator.

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- (2) The authenticator is placed at the end of the message.
- (3) To authenticate using the Shackle Cipher take the first three letters or characters of the LAST word of the text of the message, refer to the Shackle Cipher for the Day, pick out any letter on the cipher which "touches" either vertically, horizontally or diagonally each of the three letters from last word of the text. The three letters thus derived are the authenticator.

2. VISUAL COMMUNICATIONS: All airplane crews are expected to be proficient in the use of flashing lights with shore bases and ships at sea. Blinker lights will always be used instead of radio whenever possible.

<u>Airplanes in Air</u>	<u>Color</u>	<u>Airplanes on Ground</u>
Do not land - Continue to circle airdrome	RED	Do not take off; hold your position.
Circle to land	GREEN	Clear to take off.
- - - - -	WHITE	Return to flying line or bunker

3. CODES AND CIPHERS:

a. Shore-Based Aircraft:

Effective edition of CSP 1270, extracts of recognition signals, Merchant Ship Identification signals, effective "Shackle" Cipher.

b. Shore-based YE/YG equipment sector letters will be set up in accordance with the following standard sector letter sequence scribed for the Pacific Ocean Areas. Starting with the North Sector:

S-G-M-R-U-N-W-A-D-F-K-L

4. DESTRUCTION OF CRYPTOGRAPHIC AIDS: The person who is using a Cryptographic Aid is responsible for destroying it in order to prevent its compromise by falling into enemy hands. He is "The-man-on-the-spot", and his decision must be final. Aids which have been destroyed can be replaced. Aids which have been lost by capture may mean the loss of the war. Each person who is in possession of Cryptographic Aids must keep this responsibility always in mind.

5. CALL SIGNS: The following is a list of call signs to be used jointly by all Army, Navy and Coast Guard activities at a "Scene of

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Action" in the clear on Voice or CW. A "Scene of Action" may be defined as any particular area in which units may be engaged in a common activity, such as hunting submarines, rescuing survivors, etc.

- a. Any ships at scene of action. AQUA
- b. Any airship at scene of action. BARD
- c. Any Navy airplane at scene of action. CORA
- d. Any Army airplane at scene of action. HUNO
- e. SOPA (Senior Officer Present Afloat) at scene of action. MUND
- f. Aircraft I am Calling by flashing light (Surfacecraft - aircraft) LINK
- g. Ship Which I am Circling (Aircraft - Surfacecraft). . . JEBO

6. IFF:

a. TURN ON YOUR IFF ON TAKE-OFF AND LEAVE IT ON UNTIL AFTER YOU HAVE LANDED. There may be friendly naval units in the area and the Navy will bring every gun to bear if the aircraft is unidentified.

b. IFF detonators will be inserted before take-off and left inserted at all times excepting when maintenance work is being done. IFF detonators will be removed just before landing to prevent detonation on landing and will be re-inserted after landing.

c. Test IFF before take-off and in flight on 320 or 640 Kcs using the radio compass. Listen for the "quench radiation signal" (sounds like a soprano Bronx cheer.)

d. Effective IFF Codes:

Code ONE : All aircraft except as otherwise assigned below.

Code TWO : All surface craft.

Code THREE: Anti-submarine Patrol Aircraft (Secat Operations)SS.

Code FOUR : Unassigned.

Code FIVE : All submarines, including Lifeguard submarines.
Any mine laying aircraft.

Code SIX : All combat air patrol land-based fighters and night fighters

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e. On being forced down or seeing another friendly airplane being forced down or when in difficulty, turn on IFF to EMERGENCY.

f. The radio operating signal CDUI means turn on your IFF. CDVI means complete IFF silence.

7. AIRCRAFT APPROACH:

a. Aircraft approaching friendly forces from a distance of sixty miles or more shall, if not then in contact with the enemy, fly at an altitude from 3,000 to 4,000 feet. On sighting friendly force, they shall carry out the following procedure:

(1) Reduce altitude to 1,000 feet.

(2) Approach will be made in accordance with the following:

ODD days	GCT	045 or 225 degrees TRUE
EVEN days	GCT	135 or 315 degrees TRUE

Do not approach from the bearing of the sun when the sun is low.

(3) Ship's challenge:

Makes "Z's" or shines red filter on searchlight.

(4) Aircraft reply:

Daytime:

ODD days GCT, leader leave formation, circle to right; when back on approach course, dip RIGHT wing twice.

EVEN days GCT, leader leave formation, circle to left; when back on approach course, dip LEFT wing twice.

Dips must be distinctive (30 degrees) and planes must return wing to horizontal after each dip.

Nighttime:

Turn on running lights and proceed as for daytime replies, except circling may be omitted. Or make emergency pyrotechnic identification signal from effective publication.

(5) Surface units will acknowledge by making "F's" or shining green filter on searchlight at plane.

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b. Local Traffic Control in the Central Pacific Island Bases:

- (1) Use radio for local traffic control only in cases of real necessity.
- (2) Make full use of tower lights for traffic control.

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SECTION III

WEATHER BROADCASTS

1. CENPAC FORWARD AREA HOURLY TERMINAL WEATHER BROADCASTS:

a. Each base listed below broadcasts its terminal weather according to the schedule which follows. These broadcasts are made on the HOMING BEACON frequencies. Text of message will be repeated once.

(1)	Tarawa	Begins	35 & 00	Minutes	Past	Each	Hour	Z.	1175	Kcs
(2)	Makin	"	20 & 35	"	"	"	"	Z.	284	Kcs
(3)	Majuro	"	30 & 35	"	"	"	"	Z.	518	Kcs
(4)	Kwajalein	"	35 & 40	"	"	"	"	Z.	1245	Kcs
(5)	Eniwetok	"	35 & 50	"	"	"	"	Z.	476	Kcs
(6)	Anguar	"	35	"	"	"	"	Z.	480	Kcs
(7)	Guam	"	10 & 35	"	"	"	"	Z.	446	Kcs
(8)	Saipan	"	35	"	"	"	"	Z.	1195	Kcs

Terminal Weather Reports will be transmitted on Strike Frequency on request.

2. EMERGENCY WEATHER REQUESTS:

a. When an emergency exists requiring weather in the clear, the pilot is authorized to make request thus:

"EMERGENCY. REQUEST WEATHER (of specified elements)
in clear for _____ (Name of Station) _____."

b. This request will be repeated until acknowledged by ground station, which will answer:

"EMERGENCY WEATHER IN CLEAR FOR _____ (Station) _____,"
followed by complete weather report, or such elements
as were requested, in clear.

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SECTION IV

LOST AIRCRAFT PROCEDURE

1. STANDARD PROCEDURE:

a. Class A - Routine Check of Position: When the pilot isn't sure of his position and wants help from the radio operator -- you should take the following steps:

- CONTACT GROUND STATION -

- (1) Ask the ground station to give you your position by direction finder (D/F);

(3 Times)	V	(3 Times)	INT QTF INT QTF
(Ground Station Call)		(Airplane's Call)	INT QTFK

*** Or ***

Ask for the true bearing

(3 Times)	V	(3 Times)	INT QTE INT QTE
(Ground Station Call)		(Airplane's Call)	INT QTEK

- (2) The ground station will then ask you to transmit dashes and call sign.

(3 Times)	V	(3 Times)	INT QTG INT QTG
(Airplane's Call)		(Ground Station Call)	INT QTCK

- (3) You will then transmit your call sign once, followed by five dashes, each ten seconds long -- continue this procedure and listen until the ground station breaks in with the desired information.

- (4) The ground station will tell you your position or what course to fly and will continue to stand by for your acknowledgment or any other message.

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b. Class B - Lost - Urgent: Position unknown and in need of assistance because aircraft might be endangered.

- (1) Use XXX (INTERNATIONAL URGENT SIGNAL) when asking ground station for position.

<u>(3 Times)</u> (Ground Station Call)	V	<u>(3 Times)</u> (Airplane's Call)	<u>XXX</u> (Urgent Signal)
<u>INT QTF INT QTF INT QTFK</u> (Procedure Signal)			

This will alert the ground station and assure best possible service in handling the emergency.

- (2) The ground station will then ask you to transmit dashes and call sign.

<u>(3 Times)</u> (Airplane's Call)	V	<u>3 Times</u> (Ground Station Call)	<u>INT QTG INT QTG</u> <u>INT QTGK</u>
---------------------------------------	---	---	---

- (3) You will then transmit:

L L L L MO MO MO MO V 1 Time L L L L
(Airplane's Call)

followed by a fifteen second break. Make dashes of the MO's at least ten seconds long and keep transmitting until the ground station breaks in with the desired information.

- (4) The ground station will tell you your position of what course to fly, and will continue to stand by for your acknowledgment or any other message.
- (5) Follow in detail ground station's instructions.

c. Class C - Distress: Definitely in trouble and immediate assistance needed.

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- (1) Send in clear.
- (2) Call ground station and give him your position:

(3 Times) (Ground Station Call)	V	(3 Times) (Airplane's Call) QUG QUG QUG	SOS SOS SOS
			(LAT) (LONG) ^K

Send until ground station acknowledges.

- (3) Inform the ground station of the following:
 - (a) Your identification.
 - (b) Your position.
 - (c) The nature of the distress.
 - (d) Any information that is needed to effect speedy rescue.
- (4) Transmit as long as you can so that D/F stations may have an opportunity to determine your latest position -- BUT STOP TRANSMITTING LONG ENOUGH FOR THE GROUND STATION TO GIVE YOU NECESSARY INFORMATION. Screw the key down when you leave the transmitter so that your position will be known until the plane hits the water.
- (5) The INTERNATIONAL FREQUENCY - 500 Kcs will NOT be used except by direction from the ground station in control.
- (6) FOLLOW IN DETAIL GROUND STATION'S INSTRUCTIONS.

2. LOST AIRCRAFT PROCEDURE - In Hawaii or Enroute to Hawaii:

a. The procedure outlined below will be followed in all cases of lost Army aircraft, in the Hawaiian area or enroute to Hawaii:

- (1) An aircraft will be considered lost and the lost plane procedure initiated whenever craft is thirty minutes overdue of its estimated time of arrival without explained cause for delay, or when airplane declares by radio that it is lost.

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- (2) The Rescue Control Officer, VII Air Force Service Command, is charged with the recovery of all lost army aircraft in the area. The command (Bomber, Transport or Fighter) to which the lost plane is assigned, may send an officer to the control building as soon as plane is reported lost.
- (3) The Rescue Control Officer will take full advantage of all aids open to him in recovery of the aircraft. Those aids include Army RDF net, Navy RDF net, FCC RDF net, radio plots from the VII Fighter Command, radio stations and CAA radio ranges.
- (4) The crew of the lost aircraft will take actions noted below:

(a) Radio Operator:

1. Transmit a message as follows, using liaison transmitter trailing antenna; call ground station which you have been working three (3) times; V; plane's call repeated three (3) times; BT, INT QTE repeated three (3) times; state whether you are lost (U) or a routine bearing (R) is desired: K.

Sample Message

WZJ WZJ WZJ V APO2 APO2 APO2 BT
INT QTE INT QTE INT QTE U (or R) K

2. When sending MO's use long dashes and call sign of plane every thirty seconds. Send MO's continuously for ten minutes or until told to discontinue. MO's will be preceded by four L's each time. The L's will further establish that the plane is really lost. Call will be, for example: LLLL MO MO MO MO V 2V16 LLLL MO MO MO MO V 2V16.

(b) Pilot:

1. Climb to 7,500 feet or higher, if weather and remaining gas permit. Follow instructions received from ground station to the letter.
2. Tune Command Radio to 236 KC to receive and 4495 KC to transmit and stand by for possible contact from tower.

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(c) Navigator:

1. Navigator will keep radio operator informed at all times of latest estimated position.

b. Position Relocation: It is expected that pilots will use every means under their control to keep track of, or relocate, their positions, including star sights, their own radio compass bearing, homing or known radio stations, and use of the radio ranges. This should not be construed as indicating that requests should be even slightly delayed if landmarks or lights are not sighted within fifteen minutes of the expected time.

3. LOST AIRCRAFT PROCEDURE - MIDWAY AREA:

a. Aircraft which fail to sight MIDWAY by their ETA shall, not later than ten (10) minutes thereafter:

- (1) Turn on emergency IFF.
- (2) Enter a climbing turn.
- (3) Request Radio MIDWAY to take RDF bearings on plane.
- (4) Level off at 8,000 feet and continue circling.
- (5) When a satisfactory bearing has been taken, it will be transmitted to the plane and also the magnetic course to fly will be given if voice contact has been established.
- (6) When the plane appears on the radar screen, the pilot will be coached in.

b. During periods of reduced visibility, pilots should not wait for the ten minutes to elapse before requesting bearings or assistance from MIDWAY.

4. LOST AIRCRAFT PROCEDURE - CENTRAL PACIFIC: The following is the standard procedure in the Central Pacific for lost aircraft having radio operator:

a. No more than ten minutes after ETA and depending on type of aircraft and local conditions, consider yourself lost.

b. Turn EMERGENCY IFF switch ON (distress signal).

c. Circle (start climb to 10,000 feet, ceiling and gas permitting).

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d. Attempt to establish communication with your own base or control tower (see paragraph 1, Classes A, B and C, this Section, if unable, then:

- (1) Attempt to establish communication with AACS (if established on 4595 or 8200 Kcs, CW.
- (2) Attempt to establish communication on working frequency of the plane.
- (3) Attempt to establish communication with any control station or tower at own base or nearby bases on any known frequency voice of CW or both.

e. Navigator will keep radio operator notified of approximate position at all times.

f. IF COMMUNICATION IS NOT ESTABLISHED, THE FOLLOWING PROCEDURE SHOULD BE FOLLOWED:

- (1) Each five minutes, send twice in the blind the following:

"(plane) LOST (Pilot's name)"

- (2) During the climb, again:

- (a) Check IFF to see that switch is ON and that it is on EMERGENCY.

- (b) Check receiver coil in use.

- (c) If dual coil in use, check to see whether on high or low side.

- (d) Check receiver setting.

- (e) If loop or RDF compass installed, attempt bearing on homing beacons.

- (f) Again attempt to tune in on radio range.

- (3) During climb, and upon reaching altitude, again exhaust every effort to establish communication with any station.

- (4) If night, keep lookout for searchlights. Be alert for AA fire. Rescue plane may be vectored out to lead you home, or to relay communications.

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g. If no aid received, and gas about gone, broadcast blind following message on own working frequency (if equipment and time permit), also repeat same on 500 Kcs. (CW):

- (1) "Plane call" (Pilot's name)".
- (2) "Bailing out" or "Landing".
- (3) "At (time)".
- (4) "Weather conditions, cloud cover, squalls or any other information of possible value to search planes".
- (5) Own best estimate of position.

h. All broadcasts are to be made in the clear.

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SECTION V

MISCELLANEOUS

1. EMERGENCY COMMUNICATIONS, AIRCRAFT TO SURFACE VESSELS:

a. Aircraft wishing to establish communications on 3000 Kcs with surface vessels will:

- (1) Send three dashes by flashing light.
- (2) Blip engines three times or make three short zooms..

b. Surface vessel will acknowledge by:

- (1) Sending three dashes by flashing light.
- (2) Hoisting the number "three" pennant (blue at the tip - white in center - red at base).

c. Aircraft will inform ground station as soon as practicable that they will or have shifted to 3000 Kcs.

2. INTERPLANE RADIO COMMUNICATION WHEN IN FLIGHT:

a. Use "Command Set" or VHF for interplane communication.

b. Flight Leader's Plane:

- (1) If not in visual or radio contact with any member of your flight and you desire to locate him, notify ground station in the following manner:

(1 Time) _____ (Ground Station Call)	V	(1 Time) _____ (Your Call)	QTC
1 Time _____ (Call of plane or planes out of contact)			K

- (2) Ground station will institute calls to any aircraft in question.

c. Deputy Flight Leader's Plane:

- (1) In event of the failure of the flight to perform as ordered, you will follow above procedure.

All radio operators will monitor normal
working frequency on liaison receiver.

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CHAPTER VIII

AIR-SEA RESCUE

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SECTION I

PRINCIPLES AND PROCEDURES

The responsibility for sea rescue of air crews and Navy crews has been taken over by the U.S. Navy. Adequate prior preparation by all crew members is vital to a successful rescue. Areas covered are those of POA which take in the Japanese Mainland itself.

1. PRIMARY PRINCIPLES:

- a. The rescue of flyers forced down at sea is an important and integral part of our operations against the enemy.
- b. Rescue operations often require close coordination between all units involved including separate commands and task forces.
- c. Operations are specifically assigned to designated agencies but at any time any unit, such as aircraft, submarine, surface craft, participating in an action or near an action, may be called upon to participate.
- d. All such units must familiarize themselves with operating procedures as set up in the SOP for this area.
- e. Operation plans and orders for air, surface or amphibious action against the enemy must include specific provisions for air-sea rescue according to the SOP for this area.
- f. Due to long over water distances prompt action by all rescue facilities is required.

2. RESPONSIBILITY:

- a. Rescue is assigned in general as follows:
 - (1) Land based aircraft - area commander of area in which aircraft is based.
 - (2) Ship based aircraft - O.T.C. of the force, group or unit of which parent ship is a part.
 - (3) Initiative on the part of a subordinate commander is expected as circumstances dictate.
- b. Responsibility is defined as the duty to insure:
 - (1) Prompt information of all incidents requiring rescue.
 - (2) Facilities promptly dispatched.

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- (3) Close liaison maintained until rescue is effected or further effort is not indicated.

3. TRAINING OF CREW MEMBERS:

a. Instructions are given in the proper use and maintenance of the following:

- (1) Personal and Emergency Equipment: Flying clothing, over water and jungle kits.
- (2) Flotation Equipment: Rafts - Mae Wests and related equipment.
- (3) Bail out procedure.
- (4) Ditching procedure and discipline.
- (5) Rescue Equipment: Dropping kits, signalling equipment, first-aid, etc.
- (6) Survival: South Sea Island Lore is stressed.

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SECTION II

SOP IN COMBAT AREAS - POA

1. COMMUNICATIONS:

a. The following frequencies are prescribed for air-sea rescue operations:

HF (Voice):	4475 Kcs.
VHF (Voice):	140.58 Mgs.

b. These frequencies shall be used for rescue communications by all aircraft, surface ships and submarines participating in rescue operations. They shall be guarded by units designated as rescue agencies while on rescue duty, unless otherwise instructed. Lifeguard submarines for carrier strikes shall, unless otherwise instructed, guard them from three hours prior to dawn on the scheduled date of the first air strike until the completion of lifeguard duties.

c. Since lifeguard submarines may be submerged at the time transmissions are made, information of planes forced down in an area covered by lifeguard submarines should be transmitted by responsible commanders to NPM (ComSubPac) for broadcast on the SUBMARINE FOX, unless acknowledgment from the submarine has been received. Normally, radio silence may be broken for this purpose during attacks.

d. Operations plans and orders shall, where appropriate, set forth frequencies for communication with air-sea rescue service of other areas, such as the Southwest Pacific Area.

e. Submarines and surface ships, when searching for downed aviators, shall guard 500 Kcs, the frequency upon which signals are emitted by the Gibson Girl, a small hand operated transmitter, generally carried in a long range aircraft and frequently dropped by parachute to survivors.

f. Submarines assigned to lifeguard stations will generally be equipped with IFF equipment. To avoid alerting the enemy, such submarines will not employ IFF until air strikes are well underway and the presence of our aircraft is already known to the enemy. Effective IFF codes are as follows:

Code ONE -- All aircraft, except as otherwise assigned below.
Code TWO -- All surface craft.
Code THREE -- Anti-submarine patrol aircraft.
Code FOUR -- Unassigned.
Code FIVE -- All submarines, including lifeguard submarines,
and mine-laying aircraft.

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Code SIX -- All combat air patrols, land based fighters and night fighters.

Emergency Selection -- Any plane forced down or seeing another friendly plane forced down, except in a combat melee within visual range of friendly forces.

g. When authentication of voice transmissions is required, CSP 1270 shall be used.

2. REFERENCE POINTS AND CODE NAMES:

a. In the interest of security as well as simplicity, reference points are established in those areas where it is anticipated that the majority of water landings will occur in connection with combat operations. These points are to be used in reporting the position of all forced landing incidents throughout such operations and for no other purpose.

b. A series of six code names is assigned to each reference point. These names rotate daily, changing at 1800 GCT, each name being effective during the twenty-four hour period beginning 1800 GCT on the date for which it is prescribed. Reference points will not be referred to except by the established code names.

c. Air-Sea Rescue Charts for each reference point are issued by Commander Air Force, Pacific Fleet. These charts have the reference point at the center, with bearing and distance lines overprinted, and are designed to assist pilots in giving accurate position reports. They will be carried by all pilots when operating in the area of the particular reference point.

d. The position of any forced landing or survivor is to be reported in bearing and distance from the nearest reference point. Three words are used to report position:

(1) Distance in nautical miles from reference point.

(2) Code word for reference point used.

(3) True bearing from reference point.

EXAMPLE: "15 Hairbreadth Harry 180". Meaning survivor (or survivors) down fifteen miles bearing 180 degree true from reference point (assuming "Hairbreadth Harry" to be the applicable code word).

Any departure from this system compromises the position of the survivors and exposes the rescue facilities to the danger of enemy duplicity.

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e. It should be noted that the code name serves not only to identify the reference point, but also as the voice call for any or all rescue agencies to whom the position report is addressed. No further voice call is required or should be employed. Thus a complete message might read: "This is 99 Prattle, 15 Hairbreadth Harry 180. Over." This message would be regarded as addressed to a lifeguard submarine on station, a rescue PBM on station, a surface ship or rescue VOS that might be concerned in the rescue incident, or to several of such rescue agencies.

f. If the position of both the survivor and the rescue vessel is known, the "sighting" aircraft should coach the rescue vessel to that position. Do not use the rescue vessel as a reference point or otherwise state bearing and distance from the rescue vessel to the survivor. The rescue vessel should be directed by being given courses to steer.

WRONG METHOD: "Hairbreadth Harry -- survivor 3 miles bearing 120 degrees from you" or "3 Hairbreadth Harry 120".

CORRECT METHOD: "Hairbreadth Harry -- steer course 120 degrees for 3 miles", or (if heading of the rescue vessel is also known) "Hairbreadth Harry -- change course 30 degrees left and go 3 miles".

Note that here the reference point code name is used only as a voice call for the rescue vessel.

3. REPORTING IDENTITY AND CONDITION OF SURVIVORS:

a. In addition to position, the identity and condition of survivors is necessary for efficient rescue operations and should also be reported, following the position report in the following order:

- (1) The TBS code call of the survivor's parent carrier or base should be stated where known.
- (2) The type of aircraft if known, using either plain language or the following code:

CHICKEN.....fighter
/ HAWK.....dive bomber (2 man crew)
FISH.....torpedo bomber (3 man crew)
EAGLE.....medium bomber (6 man crew)
BOX CAR.....heavy bomber (9 or 10 man crew)
MONSTER.....VLR aircraft (11 or 12 man crew)

- (3) The condition of survivors, in accordance with the following code:

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GOODYEAR.....survivor(s) in a raft
YELLOW JACKET.....survivor(s) in life jackets
DAVEY JONES.....survivor(s) without life jackets.

- (4) The number of survivors.
- (5) If dye marker is showing, the word "EVERGREEN" should be added.

EXAMPLE: "15 Hairbreadth Harry 180 Prattle Chicken Goodyear One Evergreen."

MEANING: One fighter pilot of the LONG ISLAND down 15 miles bearing 180 degrees true from the reference point in a life raft with dye marker showing. (assuming Prattle to be the TBS code call of the LONG ISLAND.)

4. PROCEDURE FOR AIRCRAFT SIGHTING SURVIVORS:

a. When a survivor is sighted by any aircraft or group of aircraft, the following procedure shall be followed, subject only to the requirements of assigned tactical missions:

- (1) A report of the survivor as outlined above shall be promptly transmitted.
- (2) Not more than two aircraft shall orbit the position of the survivor, one of the aircraft using emergency IFF and climbing to an altitude equal to 1000 feet for each ten miles from base.
- (3) The orbiting aircraft shall remain on station until relieved by other aircraft or until assured that a rescue vessel has the survivor in sight, unless forced to return to base by fuel shortage or material difficulty. The rescue vessel shall notify the aircraft as soon as the survivor has been sighted.

b. When the rescue vessel has been sighted by the orbiting aircraft, they should assist the rescue vessel in accomplishing the rescue by the following methods, where applicable:

- (1) If a plane wishes to assure himself of the identity of a submarine he may do so by directing the submarine to change course to the right or left a number of degrees.
- (2) The orbiting aircraft should zoom the position of the survivor, if possible, perpendicularly to the line of bearing between the survivor and the rescue vessel.

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- (3) An aircraft desiring the rescue vessel to follow him toward a survivor should circle the rescue vessel twice, opening and closing the throttle, then fly off toward the survivor.
- (4) If the aircraft is forced to depart before the rescue vessel has sighted the survivor, the spot should be marked, by smoke if possible. Dye marker is hard to detect from a submarine or surface vessel.
- (5) Orbiting aircraft should, if occasion arises, further assist the rescue vessel in the manner prescribed for fighter cover, below.

5. FIGHTER COVER FOR RESCUE VESSEL:

a. Where practicable, and when the circumstances dictate their employment, a two plane fighter cover shall be assigned by the responsible commander to operate with the lifeguard submarine or other rescue vessel during strikes and rescue operations. The duties of the fighter cover are as follows:

- (1) Protect the rescue vessel from enemy air or surface attack and from enemy shore fire.
- (2) Prevent friendly aircraft from making a threatening approach which might force a lifeguard submarine to dive or cause a surface rescue vessel to open fire or take evasive action.
- (3) Assist the rescue vessel in locating survivors. When practical, cover should search in separate units the area covered. As a general rule, however, cover should remain within visual distance of the rescue vessel. If necessary to depart, plane should transmit its true approach bearing to the rescue vessel before returning.

6. SEARCH FOR SURVIVORS:

a. Sighting Aids by Day: Units searching for survivors by day should bear in mind the following sighting aids:

- (1) Yellow rubber rafts. These are quite difficult to sight from either surface or air. A limited number of large black rubber boats equipped with sails and outboard motors have been distributed to the fleet. These boats can be dropped from aircraft in flight to survivors.

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- (2) Green dye marker: This can be seen farther than a raft, even from a surface ship, although its greatest use is attracting aircraft.
- (3) White smoke bomb: This is the best daylight marker for sighting by surface vessels.
- (4) Signal mirrors: These are effective at great distances on sunny days, but are difficult to aim accurately from a small rubber raft.
- (5) Yellow kite and white rubber balloon: These are included with the Gibson Girl, which is sometimes dropped to survivors. Although their primary purpose is to raise the antenna of the Gibson Girl, either may be used also as an aid to sighting.

b. Sighting Aids at Night:

- (1) Waterproof signal lights are carried by most pilots.
- (2) The Gibson Girl transmitter is so designed that it can also be used to illuminate a small light which can be used for signalling at night.
- (3) Whistles are carried by pilots to attract attention of vessels at close range.
- (4) Some rafts are equipped with a radar reflecting device. If not so equipped, a survivor in a rubber raft should attempt to raise one or more metal objects as high as possible above the level of the raft to facilitate radar detection.

c. Procedure for Night Search by Rescue Vessel:

- (1) When the searching vessel enters the area in which the presence of the survivor is suspected, a green Very star is fired at frequent intervals. (This method should not be used if enemy planes or patrol vessels are in the vicinity.) The survivor seeing this signal will reply with a Very star (red) if he has one, otherwise, by any means available, such as flashlight or flare. The searching vessel will then acknowledge with two green Very stars. Thereafter further signals may be exchanged to facilitate the approach to the survivor.

7. SPECIAL INSTRUCTIONS:

- a. Pilots are briefed to make forced landings to leeward of

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enemy territory, if possible, so that their drift will be away from the hostile shore.

b. Open-sea landings by rescue aircraft should be attempted only in emergencies when no rescue vessels are available. Ordinarily rescue seaplanes will be employed in searching for and orbiting survivors, in directing rescue vessels to the spot, and in dropping supplemental emergency gear to survivors. VOS aircraft are well adapted to missions in sheltered waters, particularly in places where submarines or surface craft cannot go.

c. Where a submarine is unable to approach a survivor on the surface because of the proximity of enemy shore batteries or strafing by enemy planes, the submarine may attempt to pick up the survivor by approaching submerged and towing him by periscope to a position where it can surface. The submarine should perform the operation at not more than three knots. It should approach the survivor from upwind and, if possible, on such a course that the survivor will not be towed closer to the enemy shore before the retirement course is set. In the early stages, when the periscope is first sighted, the survivor should attempt to hold his position to assist the approach of the submarine. If there is danger of a miss, the survivor should instantly attempt to get into position ahead of the direction of movement of the periscope. A submarine cannot back when submerged, so that after a miss it would be necessary for the submarine to make another complete circle to pick up the survivor. The submarine may stream a line, secured to a periscope, with a lifejacket or other buoyant object tied to the free end, in which case the survivor should grasp the towline or lifejacket tightly, or, preferably, secure his life raft to the towline. It is important that the survivor should not lose his life raft. If no towline is streamed, the survivor should use the line with which his raft is equipped to pass over the top of the periscope, which the submarine will attempt to have projecting no more than four feet above the water. About twenty feet of line is required. The end of the line should be held in the hand so that quick release can be made if the raft capsizes.

d. When a rescue has been effected, empty life rafts shall be taken aboard or destroyed by the rescue agency to prevent other units from making needless investigations for possible survivors.

e. Results of all incidents investigated by lifeguard submarines, other rescue vessels, or planes shall be reported to the parent carrier or base as promptly as possible, not only when personnel are rescued, but in all cases. In reporting results of rescue operations give names of all persons rescued and the names of the ships or units to which they are attached. Include condition of health of survivors if other than satisfactory. When radio silence is being maintained, reports may be transmitted on VHF to nearby aircraft for relay to the parent carrier or base.

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SECTION I

AIDS TO NAVIGATION

1. MAPS:

a. AAF Long Range Air Navigation Charts - Scale 1:3,000,000:

- (1) Caution: Many island check points are inaccurately plotted although the comparative shape and size of atolls and islands are drawn to scale.
- (2) Distances and courses measured on Mercators.

b. AAF Aeronautical Chart-Lambert Conformal Conic Projection - Scale 1:500,000:

- (1) Used on operational flights in the Hawaiian Islands.

c. Loran Long Range Navigational Air Charts - Scale 1:3,000,000:

- (1) Coverage: The general routes of air operation in the area of 25° North to 10° South Latitude, and 150° West to 155° East Longitude.

2. ROUTE GUIDES:

a. CEPARG (edited and kept up-to-date by Headquarters, Seventh Air Force, Office of Assistant Chief of Staff, A-2.):

- (1) Information dealing with airfields and airfield facilities, communication and lost-distress procedures in POA Areas.

b. Seventh Air Force Navigational Aids to Aircraft (Published by Air Communications Office, Seventh Air Force):

- (1) Information on communications facilities in use at POA Air Bases.
 - (a) Air-Ground Tower, Voice, Air-Ground CW.
 - (b) VHF Homer, YH or YJ Homer.
 - (c) Range and YG facilities.

c. AAFFOA Navigational Aids to Aircraft (Short title - Natapoa. Published by Director of Communications Office, AAFFOA):

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- (1) Covers the same information as Seventh AF Navigational Aids to Aircraft.

3. DEAD RECKONING NAVIGATION:

a. Dead reckoning is the basis of all navigation in POA.

- (1) Reading drift, wind direction and velocity from clouds and water.
- (2) Proficiency in follow the pilot lead navigator procedure.
- (3) Pin-pointing the aircraft's position in flying around weather.

4. RADIO FACILITIES:

a. In rear areas facilities are dependable.

b. In forward areas facilities are some times inoperative and should not be used except as a check on dead reckoning and celestial navigation.

5. CELESTIAL NAVIGATION:

a. The use of octant and the evaluation of observations:

- (1) Knowledge of flight characteristics of aircraft and the cooperation between pilot and navigator during "shots" make for more accurate octant observations.
- (2) Ability to differentiate between good and bad octant averages.

b. Calibrations:

- (1) Octant and drift meter.
- (2) Upper gun turret, astro-compass and mounts for astro-compass in navigation domes.

c. Solution of celestial triangle and plotting observations.

d. Use of Rude Star Finder, Air Almanacs, and H.O. 218, 214, 211:

- (1) Use of Moonrise and Sunrise Tables.

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(2) Polaris Correction Tables.

(3) Checking star position and altitude in overcast conditions by the Rude Star Finder.

e. Astro-Compass: Due to the majority of flights being over water, this is one of your most useful instruments and care should be taken of it and its mount. In using instrument be sure that mount is aligned properly with the fore and aft axis of the aircraft.

(1) Uses:

(a) Checking compass for deviation.

(b) Checking true heading of aircraft and steering a course.

(c) Star recognition and approximate dead reckoning longitude and latitude.

(d) True heading by sighting and Polaris.

(2) Caution: Level bubbles before each observation and take four or five observations to get a good average.

f. Finding deviation:

(1) Polaris and astro-compass.

(2) Top gun turret:

(a) Very accurate since spaces between degree markings are so much larger than on an astro-compass.

(b) Caution: Operate manually and not electrically. (The surging of current through turret may throw magnetic compasses off four or five degrees.)

g. Proficiency in flying landfalls and noon-day fixes:

(1) Small islands plus long water distances between islands make pin-pointing and accuracy in navigation a "must".

h. Latitude by meridianal altitude and longitude by single LOP.

6. LORAN NAVIGATION:

a. The flight routes in POA are covered by Loran.

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- (1) Experienced operators may secure excellent results in pin-pointing the aircraft's position.
- (2) A small proportion of our present supply of aircraft in POA have the airborne equipment.

7. EMERGENCY PROCEDURES:

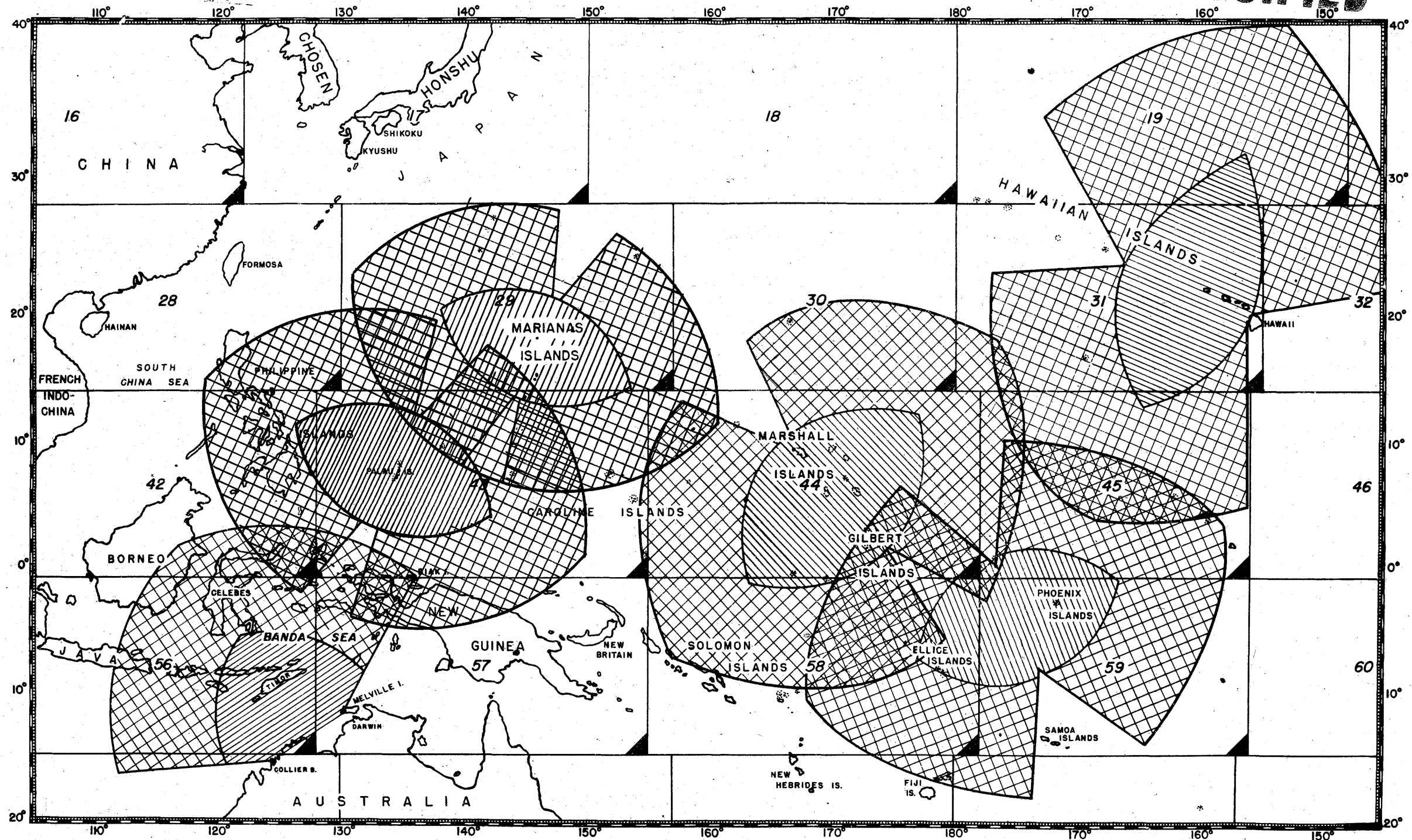
a. If uncertain of DR position and ETA for base is almost up, have radio operator start keying ground station for radio or radar fix. Guess work and luck pay no dividends in POA.

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LORAN COVERAGE CHART

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LEGEND:
[Cross-hatched box] INDICATES GROUND WAVE COVERAGE
[Diagonal lines box] INDICATES SKY WAVE COVERAGE

EACH BLOCK SHOWS AREA COVERED BY A VL30-
(LORAN AIR NAVIGATIONAL CHART). TO ORDER CHARTS USE
VL30- (THE NUMBER OF THE CHARTS INDICATED BY THE
NUMBER IN THE BLOCK ABOVE). PILOTS SHOULD TAKE THOSE
CHARTS NECESSARY FOR EACH

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SECTION II

CARE OF EQUIPMENT

1. Due to the climatic conditions and extreme humidity peculiar to this theater it is necessary to take extra precaution in the use and care of equipment for the following reasons:

a. Octants and astro-compasses will rust and corrode at all movable points.

(1) Bubble chambers in octants tend to swell (A-12 Octant).

b. Computers of bakelite construction and Weems plotters will warp due to heat and humidity.

c. Replacement of equipment:

(1) May be procured in rear area in Hawaiian Islands.

(2) Practically unprocureable in forward areas.

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SECTION III

FLIGHT PLANNING

1. PLANNING A FLIGHT:

- a. Check on weather reports and plan flight accordingly.
- b. Plot courses to take advantage of any available check points.
- c. Intelligence:
 - (1) Check for restricted areas and by-passed Jap bases.
 - (a) These by-passed Jap bases may be used as check points.
 - (b) Caution: Avoid flying directly over these bases since low flying aircraft may be fired upon.
 - (2) Recognition codes for the day.

2. PILOT-NAVIGATOR COORDINATION:

- a. Pilot must fly the navigator's heading without unnecessary deviations from course.
- b. Pilot should assist navigator in pilotage navigation.
- c. On any flight altitudes and air speeds, courses and ETA should be discussed prior to take-off.

3. "TIME-TICKS":

- a. Constant use of celestial navigation calls for frequent checking of master chronometers.

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CHAPTER X

WEATHER

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SECTION I

WEATHER SERVICE

1. ORGANIZATION OF THE WEATHER SERVICE:

a. The 1st Provisional Weather Group with Headquarters at APO #953 is charged by the Commanding General, Pacific Ocean Areas, with providing an adequate weather forecasting service for U.S. Army organizations in this area. In the group are two squadrons, the 7th Weather Squadron, which serves the Central Pacific, and the 17th Weather Squadron, which serves the South Pacific. Complete cooperation is maintained with the U.S. Naval Weather Forecasting Service in the same area.

b. Army and/or Navy weather stations are located on all islands and atolls where such service may be required. Each station is prepared to give complete twenty-four hour forecasting service. In order to provide this service, weather reports are gathered by AACS from the USAAF in the CBI Theater. Pilot In-flight Reports (see paragraph 2) represent a major source of weather information.

c. Weather information is available to flying personnel, Army Ground Forces personnel, operational sections, amphibious units, staff weather officers, and all other interested organizations and individuals. Several weather centrals are in operation to provide special services to those agencies requiring such information. Staff weather officers are requested to contact the weather group commander and the nearest weather station or central for the service that is required by their organizations.

2. IN-FLIGHT REPORTS:

a. The conditions under which the weather service is operating in this area require that a large portion of the weather data be gathered by flying personnel. From complete and accurate in-flight reports, weather forecasters are able to reconstruct the weather situation and supply better weather forecasts. From in-flight reports, data may be obtained relative to cloud formations, winds, location of severe weather conditions, and height of icing level. The wind data proves very useful in supplying other crews with the proper winds over the same or nearby routes.

b. Navigators in the Pacific Ocean Areas will find that forecasted winds are quite reliable. However, sudden changes in the weather conditions may bring about changes in forecasted winds. For this reason, it is suggested that drifts be taken and that winds be checked for accuracy. All wind data taken by navigators should be indicated on In-Flight Reports so that others may use the information to their advantage.

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3. WEATHER REPORTS: Hourly terminal weather is broadcast on homing beacons at 35 minutes past the GCT hour at all stations in the POA. Most of these stations also broadcast terminal reports at 05 minutes past the GCT hour. In addition to the homing beacons broadcasts, weather reports can always be obtained by making a request to the nearest radio station.

4. "IN CLEAR" AND "SECURE" AREAS: The POA and SWPA are divided into two areas with respect to the methods used in the dissemination of weather information. These are known as the "in clear" and the "secure" areas. (See map)

5. CODES AND CIPHERS:

a. The "in clear" area:

- (1) In this area all terminal reports are given in clear text, regardless of whether it is transmitted by voice or CW. Voice transmissions are made in plain language, giving the weather elements in the order in which they appear on the UCOPAC form. C/W transmissions are made in WAF-3 code unenciphered.
- (2) In-flight reports are encoded in WAF-3 and transmitted in clear text.

b. The "secure" area:

- (1) The UCOPAC cipher consists of a permanent frame and an accompanying UCOPACARD that changes daily at 1200 GCT. This cipher is the principal means by which a pilot in this area deciphers weather information which is obtained while in flight. All request-reply traffic should be made in UCOPAC except in case of emergency when the pilot may request that weather reports be transmitted in the clear. All scheduled broadcasts of weather reports on homing devices in this area are enciphered in UCOPAC.
- (2) The WAF-3 code enciphered in ANDUSMET cipher is used by aircraft making in-flight weather reports. By using the WAF-3 code it is possible to report all weather elements, as well as position, elevation and time of observation. The WAF-3 code may also be used for requesting terminal conditions, route forecasts, and terminal forecasts for either the stations called or any other station desired. The ANDUSMET cipher sheet changes each day at 1200 GCT and has complete instructions for use printed on each.

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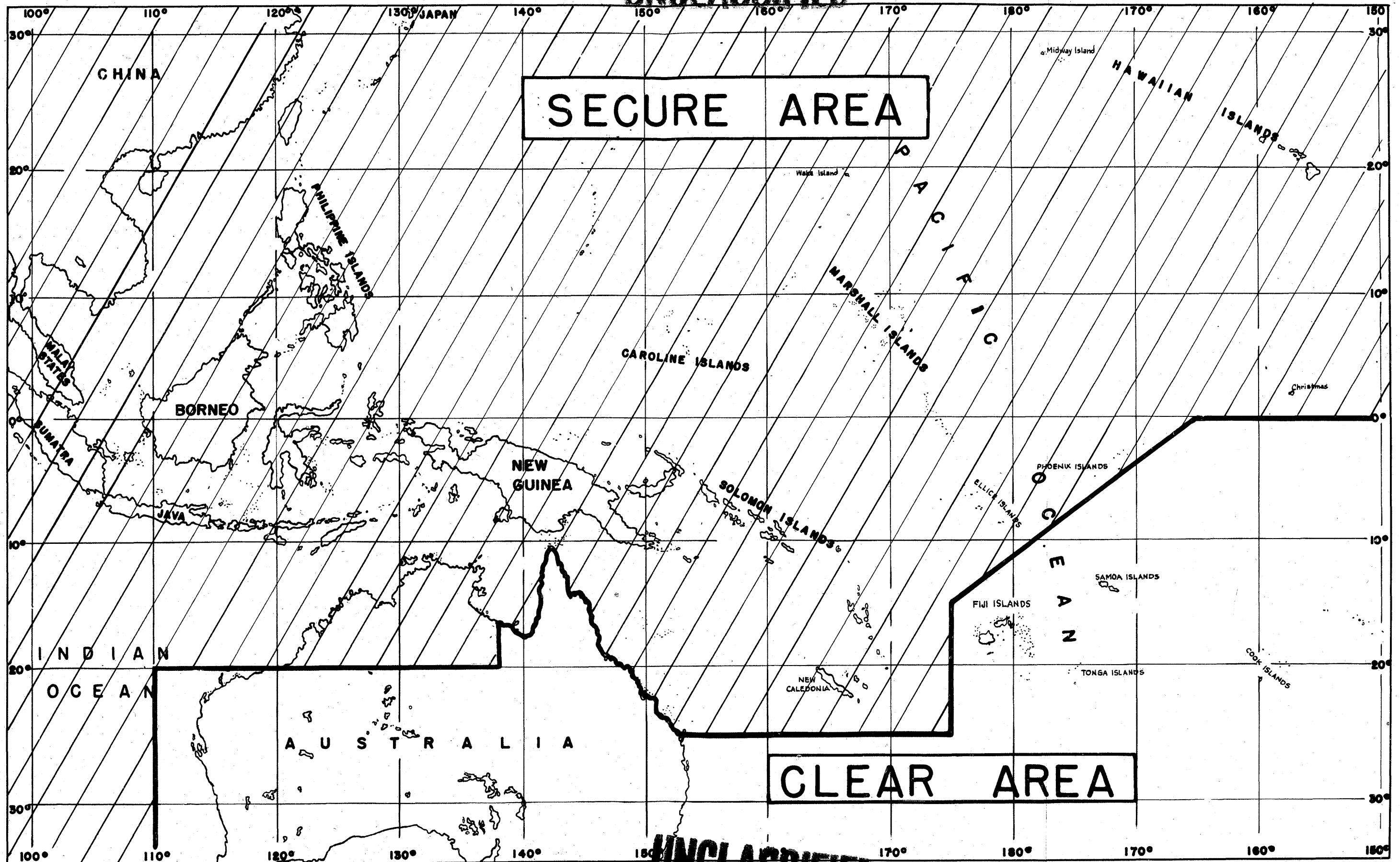
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- (3) Transmission of weather reports in clear text in the "secure" area will be made only in case of emergency. In the event a pilot decides that a state of emergency exists, the following procedure should be used:
- (a) Pilot will state: "Emergency, request UCOPAC weather in the clear for (name of station)." The request will be repeated until acknowledged by control tower or radio station.
 - (b) The ground station will transmit: "Emergency weather in the clear" and will then give the weather elements in the order given on UCOPAC form, in the clear. The word clear will be transmitted at the beginning and the end of the message.

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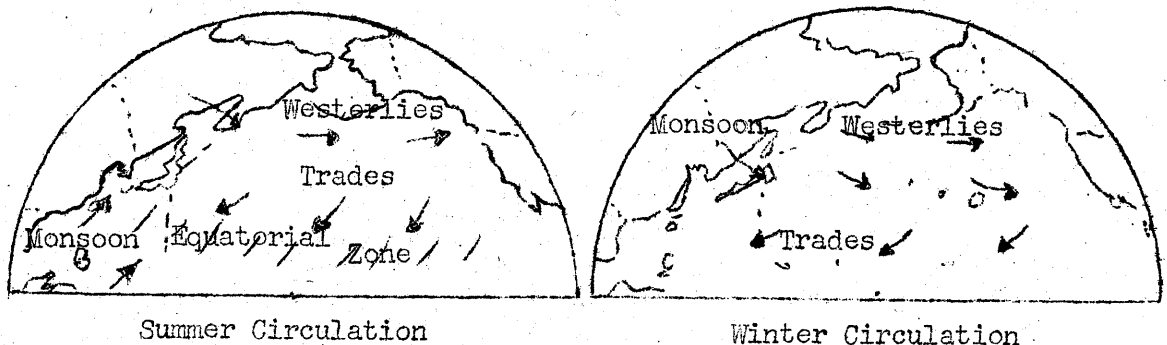
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SECTION II

CLIMATOLOGY OF THE POA

The weather and climatology of the Pacific Ocean Areas is directly related to the general circulation of the air over the area. This circulation can be easily understood by a brief study of the diagrams below.



1. THE EQUATORIAL ZONE: (Sometimes referred to as "Doldrums")

a. While in POA the term "equatorial zone" will be used to explain a weather area near the equator. In and near the "equatorial zone" will be found different types of "fronts", "depressions", "shear lines", and "lows".

b. The weather that occurs in the equatorial zone will vary in intensity from towering cumulus with light showers to well developed cumulonimbus with stratus at different levels, moderate to severe turbulence, and heavy showers. Large areas will be encountered in which there will be no weather at all with fair weather cumulus widely distributed throughout the locality.

c. Pilots flying in POA have different techniques for going thru weather -- some fly under cloud formations, others try to top the clouds, and another group, fuel permitting, look for a "thin spot" and fly through. The best altitude for most flying has been found to exist at 8,000 feet.

d. The equatorial zone is comparable to the northern part of South America from Trinidad to Natal.

2. TYPHOONS: (Hurricanes in the Atlantic Ocean and South Pacific)

a. The equatorial zone is also an area of typhoon generation. The average tracks of the typhoons are from east to west and to the

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north east of the Philippines where they recurve towards the Japanese Empire. However, at times the typhoons do not recurve but go through the Philippines and South China Sea towards China and Indo-China. Typhoons vary in area, ranging from fifty miles in diameter in the incipient stages to approximately 800 miles in diameter for a fully developed typhoon. Torrential rains, violent turbulence, large areas of dense clouds and winds of eighty knots or greater are characteristic of a fully developed typhoon.

b. Pacific typhoons are more intense than the Atlantic variety -- the average well developed typhoon may be compared to the New England hurricane of 1938.

3. THE NORTHEAST TRADES:

a. The winds in the Northeast Trades are as they imply -- predominately from the northeast. The Northeast Trades area generally has excellent flying conditions. The normal cloud type is a fair weather or "trade" cumulus and light showers may be encountered. The trades in the Northern Hemisphere are best developed during the northern winter and likewise in the Southern Hemisphere. As indicated previously, 8,000 feet has been found to be an ideal flight altitude.

b. Bermuda is affected by the Atlantic trades and experiences weather similar to the trade area in the Pacific.

4. SEASONAL MONSOON ZONE:

a. Due to the large land masses, such as Asia and Australia, a seasonal flow of air known as "monsoons" develops. The monsoons for the most part affect areas in the Western Pacific. The northerly monsoon in winter (Northern Hemisphere) is a cold, semi-dry air which replaces and often converges with the trades. The boundary or weather front between the different streams will have towering cumulus, turbulent air, marked wind shifts, and an icing level at approximately 12,000 feet.

b. The southwest monsoons (summer months) blow steadily from the southwest and are characterized by excessive cloudiness, rain squalls, and thunderstorms. This monsoon flow produces the worst weather in the Philippines Area and often typhoons as well as other tropical disturbances form to increase the severity of the weather. Fortunately, the United States is not under the influence of a monsoon and it is difficult to make a satisfactory comparison.

5. THE WESTERLIES:

a. The northernmost climatological zone in the Pacific is that

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region of the prevailing westerlies which lies north of 40° North Latitude. The prevailing winds are westerly (southwest to northwest) all year but are stronger in the winter than in the summer due to the development of "depressions" in the winter in the Aleutian area. The migratory depressions and associated frontal passages make the weather of this region variable from day to day, especially in winter.

h. The Japanese Empire is under the influence of the Seasonal Monsoon Flow and the westerlies in the winter time. Reports from this area indicate that in the winter there is considerable weather with heavy cloud formations, precipitation, reduced visibilities, severe turbulence, and conditions favorable for icing formation accompanied by high winds at various altitudes. There are times, however, following the passage of a deep storm, when the Japanese Empire enjoys fair weather, even in the winter time.

c. Pilots who have flown the North Atlantic Route near Newfoundland and Greenland in the winter months have experienced weather similar to that which exists over the Japanese Empire from November to April.

6. HURRICANES: (Typhoons in the North Pacific) Hurricanes occur in summer (December - March), originating in the region of the equatorial zone. Movement is in a WSW direction, recurving in a counter-clockwise direction so that by 30° south the hurricane is usually moving southeast. Fully developed hurricanes affect an area up to 800 miles in diameter and wind velocities of eighty knots or greater may be encountered. The heavy precipitation and severe turbulence encountered in these storms make flying in their vicinity extremely dangerous.

7. THE SOUTHEAST TRADES: To the south of the equatorial zone lies a zone of predominately southeasterly winds. Near the equator the easterlies extend above 30,000 feet, but farther south westerlies prevail aloft throughout the year. This trade wind zone is a region of excellent flying conditions. Fair weather cumulus and light showers are the usual occurrence.

8. EFFECT OF TERRAIN: Throughout the Pacific, at those islands where there are hills and mountains, extensive cloud formations will develop. Cumulus may build up to 30,000 feet near the mountains precipitation on either the windward or leeward side.

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